LONDON JOURNAL OF MEDICINE,

A MONTHLY

Record of the Medical Sciences.

SEPTEMBER 1851.—No. XXXIII.

ORIGINAL COMMUNICATIONS.

ILLUSTRATIONS OF THE DIFFICULTIES WHICH BESET THE DIAGNOSIS OF SOME CASES OF DISEASE.

By THOMAS POYSER, Esq., F.R.C.S.Eng.

(*Continued from p. 733 of Volume for* 1850.)

I PUBLISHED in the LONDON JOURNAL OF MEDICINE, for August 1850, some observations under the above title; and the following remarks are offered in farther elucidation of the same subject.

It has appeared to me that (in the country at least) we pay less attention to diagnosis, than to therapeutics. We are too apt to prescribe before the disease has fully developed itself; or before we know its precise nature, or the organ affected. Do we not sometimes, by a too precipitate recourse to potent medicines, interfere with the remedial efforts of nature, and not only aggravate the malady, but render its cause more obscure? The French adopt an opposite error: they more carefully investigate the cause and seat of the ailment, and then, by removing the obstacles to recovery, leave nature to perform the cure. In acute diseases, very lamentable consequences sometimes result from this timid system of therapeutics; whereas, if this "expectant method" be cautiously followed in suitable cases, much good results. Energetic remedial measures are judicious, and imperatively demanded, when the disease is acute, and its nature manifest: but, in doubtful cases, it is much safer to wait, than hastily to adopt active treatment, which may be as potent for evil as for good.

The cases subjoined may not possess much practical importance; yet, as illustrating some points of diagnosis, they may not be without some value to practitioners.

CASE II. OSSIFICATION OF THE AORTIC SEMILUNAR VALVES, WITH FATTY DEGENERATION OF THE HEART. R. H., Esq. This gentleman in early life suffered much from spasmodic asthma; but as he grew up, this disease wore off. When he was about fifty, he became subject to gout; and occasionally passed large uric acid calculi,

with severe pain, and generally a considerable discharge of blood. The hæmaturia would also sometimes recur, if he took violent exercise on horseback, or on foot, without the pain, or other symptoms of gravel. He suffered, however, much less from these affections for some years before his death; and, during the last three years of his life, he had no attack of either gout or gravel. He then became more lusty and bloated, and began to suffer from dyspnœa on walking up hill, and from occasional acute pain in the region of the bladder. He attributed the shortness of breathing to increased corpulence; and his own feelings led him to apprehend that the pain in the bladder arose from stone. The pulse was always feeble and quick; the impulse of the heart was also feeble, but the stethoscope did not indicate any other morbid condition of that organ. There was usually a puffy or œdematous swelling of the ankles and feet. These symptoms continued to increase, particularly the pain in the hypogastric region, which was occasionally so severe and long-continued, as to require large doses of opium to assuage it. For a few months before his death, Mr. H. suffered from occasional attacks of syncope; and less bodily or mental exertion brought on the paroxysms of dyspnœa. From the symptoms, as well as from stethoscopic examination, it then became evident that there was valvular disease of the heart. He was, however, never confined to the house, and followed his usual amusements and avocations to the moment of his death, which took place instantaneously, on Jan. 11th, 1851, while sitting in his library.

There existed a peculiarity in the case of Mr. R. H. which it is right to mention: viz. that if he took the smallest quantity of rice, he was immediately attacked with erythema, extending over the whole body, and accompanied with severe itching fever and swelling of the eyes, and generally continuing two or three days.

An autopsy was made thirty-six hours after death. The body was covered with a thick layer of fat. The heart was small. In the apex of the left ventricle, there was a small polypus. The aortic semilunar valves were completely ossified; and the aperture through them was so much diminished, as only to allow the end of the little finger to pass. The aorta itself was larger than usual, particularly about the arch. The coronary arteries had patches of ossific matter on them; and the muscular substance of the heart was pale, flabby, and loaded with fat. The lungs and abdominal viscera were healthy, and the bladder free from calculi, or any other morbid appearance.

Remarks. This case illustrates too truly the accuracy of Dr. Latham's remark, in the preface to his valuable *Lectures on Clinical Medicine;* that in certain diseases of the heart, "the same signs which notify their existence, declare their incurability". "What a gain," he adds, "will it be to mankind, should observation hereafter discover that the conversion of the valves of the heart, and the lining of arteries, into earthy matter or cartilage, has its sure pathological origin in certain forms of disease, in other parts or in the constitution at large, which are both obvious and curable; or in certain habits and modes of living, which can be rectified or avoided."

In this case, there can be but little doubt that when the peccant matter of the blood ceased to be eliminated from the system, through the agency of the attacks of gout or gravel, a deposit took place on

the aortic valves. It hence shows the importance of not neglecting "to rectify certain habits and modes of living", which may occasion these diseases, or by remedial measures to obviate the cause, even when the paroxysms have ceased to recur.

This case also confirms a point of diagnosis, first, I believe, adverted to by Mr. Allan Burns, in his *Treatise on the Diseases of the Heart:* that in certain affections of that organ, more especially chronic inflammation, acute pain in the hypogastric region is a common attendant, if not a pathognomic symptom. He relates some fatal cases, where the true seat of the disease was not suspected during life, the symptoms being attributed to disease of the bladder, and in one instance to disease of the uterus: yet dissection proved that these organs were quite healthy, and that the morbid condition of the heart was the sole cause of the symptoms, and of the fatal termination. In the case above narrated, the pain in the bladder was the only symptom which arrested the patient's attention, or for which he was anxious to obtain relief. As it occurred before there was any evidence of disease of the heart, and continued at intervals during the whole of its progress, I think it deserves attention, not only as a concomitant, but as a premonitory symptom, of these intractable maladies.

Case iii. Large Renal Calculi. John Brocklehurst, aged 40, the servant of a gentleman of this town, for three or four years before his death, suffered from dyspeptic symptoms, and occasional pain in the loins. He had no difficulty in micturition, nor did the urine exhibit any morbid appearance. Having tried various remedies without any relief, he was admitted into the Derbyshire Infirmary, and was several weeks under the care of the late Dr. Baker, who treated the case as one of dyspepsia. He was discharged from the infirmary without being relieved. He then consulted an irregular practitioner, who, regarding the case as one of lumbago, used heating and stimulating internal, as well as external remedies, which aggravated the symptoms. Subsequently he put himself again under my care. He was now sallow, emaciated, and the pain in the back had become more constant and severe. He had been taking the oil of turpentine and carbonate of soda in large doses. He made water freely, and without pain; but the urine was alkalescent. On examining carefully the seat of the pain, it was in the region of the kidneys, and was a little increased by pressure. At this advanced period of the disease, and from his emaciated state, the hard projecting kidneys were easily felt through the integuments. He took barley-water acidulated with muriatic acid, and opium, in such doses and at such intervals as the pain required. Under this treatment, he lived in a state of comparative comfort for about three weeks, when he sunk from exhaustion and debility.

Autopsy. Twenty-four hours after death, the body was examined Nearly the whole substance of each kidney was absorbed, and the space occupied by calculi of great magnitude. This mass of calculous matter was surrounded only by the fibrous tunic of the kidneys. One kidney contained four, the other three calculi, closely fitted together; and the whole had assumed the shape, and the ordinary size, of that organ. The calculi were composed of the earthy phosphates, confusedly cry-

stallised, and weighed altogether eight ounces and four drachms. The body was extremely emaciated, but free from any other disease.

Remarks. Many cases similar to this are on record; but I have selected it, as illustrative of the object I have in view, viz., to direct attention to a more careful diagnosis. It is not improbable, that if in the early stages of the disease, the urine had from time to time been tested, the further deposit of earthy matter might have been prevented by appropriate treatment, instead of being increased by magnesia and the other alkaline medicines, which were the remedies mainly had recourse to.

It is remarkable how large a portion of the glandular substance of the kidneys may be displaced by calculous matter, without impairing their functions, and sometimes also without occasioning much pain. In this case, till within a few weeks of the patient's death, the pain was not of a fixed character; nor did it disable him from following his usual occupation, till he was prevented doing so by exhaustion and debility.

In the Descriptive and Illustrated Catalogue of Calculi, in the Museum of the Royal College of Surgeons in London, there is an engraving of a large Calculus, of the shape and structure of those I have described. This calculus, now in the museum, weighs seven ounces and four drachms. In an original memorandum by Mr. Hunter, appended to it, it is stated, that "this calculus was taken from the pelvis of the right kidney of Mrs. ——, a natural daughter of Sir Richard Steele. She was never known to have a nephritic symptom till just before her death, when she was taken with a violent pain in her right side, near to the back, the seat of the right kidney, which appears to have thrown her into a fever, of which she died: and upon opening the body was found this stone, filling up an enlarged pelvis, and the substance of the kidney itself become so thin, as only to appear like a coat or membrane covering the stone, which gave the idea to the surgeon, that the substance of the kidney was grown into a stone."

Wirksworth, July 31, 1851.

REPORT OF A CASE OF ACUTE GLANDERS, FOLLOWED BY RECOVERY; WITH REMARKS.

By F. W. MACKENZIE, M.D.Lond., Fellow of University College; Physician to the Paddington Free Dispensary for the Diseases of Women and Children, etc.

It is unnecessary, at the present day, to adduce any additional facts or arguments to prove that Glanders is a disease which is communicable from the horse to the human species. This has been completely established by the researches of many accurate observers, and is, I believe, generally admitted by the profession at large. As, however, the recorded cases of its occurrence in man are not very numerous, from the fact, probably, that it is not readily communicated to the human race, and as consequently many points relating to the pathology of the disease are obscure, it is presumed that the report of an additional case will not be unacceptable to the profession. I therefore subjoin the particulars of one which has lately been under my care,

and have added some remarks, which have been suggested by a consideration of it.

Case. William Wilcox, a horsekeeper, aged 58, was admitted into the Paddington Infirmary, late in the evening of the 19th July. He was seen by me the following day, and appeared to be very dangerously ill. His face generally was swollen and suffused, but more especially in the submaxillary region. A large quantity of saliva was pouring from his mouth, his breath was extremely fetid and sickening, his gums were swollen, and his teeth loose,—some indeed were merely hanging from the gums. The tongue was much enlarged, and could not be protruded beyond the margin of the teeth, and it was forced upwards against the roof of the mouth by the swelling of the salivary glands below; the throat was constricted, and consequently both breathing and swallowing were difficult. His nostrils were filled with a thick glutinous secretion of an offensive odour, which was with difficulty dislodged. The patient had been very restless all night, had been constantly throwing his arms about, was alternately chilly and hot, and at times sweated profusely; he had a quick pulse, and was in a state of extreme prostration. Looking to the profuse salivation, the condition of the salivary glands, the extreme fetor of the breath, and the state of the gums and teeth, my first impression was that he had been severely salivated with mercury. It appeared, however, that he had not taken a particle of this medicine for some time, and his general symptoms were, moreover, inconsistent with this view. After a great deal of trouble, occasioned by the difficulty he had in articulating, the following history was obtained.

He had for some time past been in very destitute circumstances, in consequence of having been out of regular employment; his food had been scanty and bad, and he had been accustomed to sleep about in stables, or wherever he could get a shelter for the night. Under these circumstances, he accepted the charge of some glandered horses at Islington. He began attending to them on the 30th of June; and, at one time, had thirteen under his care, but some became so bad that they had to be sent to the knackers. In grooming them, the secretions from their mouths and nostrils were frequently blown upon his face, and the stench of the stable in which they were kept was very great. A week after he had been looking after them, he began to feel feverish and ill; his stomach in particular became disordered, and his appetite bad. He was now anxious to give up his employment, but his master pressed him to stay, and he remained for several days longer. He got progressively worse, the febrile symptoms increased, and his stomach became so much disordered that he could not retain any food; at times, he broke out into profuse cold sweats, but he had no rheumatic pains, nor had he as yet any local affection of the face, nose, or salivary glands.

On Sunday morning, July 13th, while cleaning the horses, he felt completely overpowered by the stench; and he became so ill, that he was obliged to leave the stable abruptly. He was now seized with severe headache and giddiness, and swelling of the face. Lachrymation and profuse salivation soon followed. He says that half a pint of fluid ran from his mouth in the course of an hour; his teeth became loose, and the gums painful and tumid. His tongue began to swell, his throat felt constricted, and his nostrils became filled with a thick

yellow, fetid, glutinous secretion. He had frequent rigors, succeeded by heats and cold sweats, and he felt very low and weak. He was now obliged to give up his work, and was advised to take some gin, which, together with beer, he drank from time to time, but his stomach was so irritable that very little would stay upon it. He left Islington, and came to the Iron-gate Wharf at Paddington, in the hope of getting better, but he still continued to get worse, and on the 18th July, he applied at St. Mary's Hospital for advice He received some medicine as an out-patient, but having no home to go to, he did not take it. The next day he went again, and had a blister applied below the jaw, but feeling worse towards evening, he applied for and received an order for admission into the Paddington Infirmary.

When admitted, I am told, he was in a very exhausted state; he breathed with difficulty, and could scarcely swallow some wine which was given him. The fetor from his mouth was most intolerable; he was restless, passed the night without any sleep, and was observed to throw his arms continually about.

I saw him at 2 P.M. on the following day. He was then worse than when admitted, his breathing was more difficult, and the swelling of his face had increased; this was most marked, as I have said, under the lower jaw, where it formed an enormous tumour. I have already mentioned some of his symptoms, but it may not be amiss to recapitulate the following. There was a profuse discharge of saliva running from his mouth; the tongue was tumid, and its surface covered with a white, moist fur; the gums were soft and swollen, and his teeth loose. On passing my finger under the tongue, a large elastic tumour was felt on each side of the frænum linguæ, apparently consisting of the enlarged sublingual and submaxillary glands, and the distended ducts of the latter. I made a free incision in each of these, and a great quantity of clear glairy mucus poured out, which gave the patient much relief. I was unable to examine the throat, on account of the general swelling of the parts, but from the character of the breathing, and the difficulty of swallowing, it was evidently swollen, and the isthmus faucium contracted. I could not, however, see any appearance of erosion, ulceration, or pustules. The nostrils were filled with a viscid, yellow, opaque secretion, which, as I have said, was with difficulty dislodged, on account of its tenacity. The conjunctivæ were injected, and the eyes watered profusely. The patient complained of severe headache, which was greatest over the eyes and frontal sinuses, but at times it was felt over the greater part of the head. He was very sick, could not retain food upon his stomach, and was very restless and uneasy. He stated, that he had not slept for a week. He was alternately chilly and hot, and, at times, broke out into cold sweats. His pulse was quick and weak, and he complained of great lassitude. He had no rheumatic pains, or any perceptible eruption on the skin or mucous membrane; the blister which had been applied had risen, and had a greenish, sloughy, unhealthy appearance. His bowels had twice acted during the morning, and he had made water freely.

TREATMENT. He was directed to take immediately an emetic, consisting of half a drachm of ipecacuanha, and, as soon as vomiting had ceased, to take five grains of the sesquicarbonate of ammonia in water every hour, using as little water as possible; to use frequently a gargle

of the chloride of lime, and to have wine and such nourishment as he could swallow given freely, and to take at night an opiate, consisting of twenty drops of the tincture.

July 21*st.* On visiting him in the afternoon, his appearance was in every respect improved; his face was less swollen, as was also the tongue and salivary glands. He spoke, breathed, and swallowed better. His tongue was reduced in size; he had slept comfortably during the night, and taken nourishment, such as beef-tea, freely. His pulse had fallen to 80; the skin was cool, and he had experienced no rigors during the day. He said that the emetic occasioned copious vomiting of green unhealthy matter, and that as soon as this had taken place, he felt relieved, and as if a load had been taken off him. He subsequently took the ammonia as directed. He was ordered to continue this, and to take five grains of blue pill at bed-time, as the tongue was still rather white.

July 22*nd.* Improving; the tongue was almost of its natural size, and there was very little swelling of the face or salivary glands. He spoke, breathed, and swallowed better; the breath was less fetid; the pulse was quiet; the skin cool; and the bowels open. He had slept well, and had a desire for solid food. To omit wine and beef-tea, and to have animal food, with a pint of porter daily. To continue the ammonia every four hours.

July 23*rd.* In every respect better. The swelling of the face and throat was less, as was also the discharge of saliva. He slept well, and enjoyed his food. To continue the ammonia every four hours.

July 24*th.* Better. He had slept well, and ate well; the bowels were open. The swelling of the face was now confined to the submaxillary region, and was very slight; he could breathe through his nose, and swallow without any difficulty. The tongue was clean, moist, and of its natural size; the gums were but very little swollen; the teeth were firmer; there was no fever or shivering; skin cool; pulse 72. To continue the ammonia every four hours.

July 25*th.* He was convalescing favourably.

July 28*th.* Up to this date he had been daily gaining ground. The ammonia was discontinued on the 25th, and since then he has been taking merely a nourishing diet, with a pint of porter daily. He now wished to be discharged, declaring that he never felt better in his life. He left the next day.

Diagnosis. The first question which occurs in the consideration of this case, is whether it is such as I have represented it to be, viz., one of acute glanders or not; and although the history, its mode of development, and the assemblage of symptoms, taken collectively, lead, in my opinion, to no other conclusion, yet, it must be admitted, there are points in which it differs from other cases of the disease which have been reported. Thus, in this, there was neither ecchymosis, gangrene, or pustules, observable upon the affected mucous membrane; neither was there any specific affection of the lymphatics or the cellular tissue, although such conditions are described as forming part of the disease when fully developed. If, then, these are to be regarded as essential to it, the genuineness of the present case may be doubted. But a perusal of those which have been published does not appear to me

to lead to this inference; whilst I may remark they amount to so small a number, and their history is in some respects so imperfect, that it is impossible to draw any positive conclusion from them as to the significance of particular symptoms. "Glanders", says Dr. Robert Williams, "is a disease consisting of primary fever and of local inflammation, but the local inflammation may occur independently of the fever. When the inflammation exists *per se*, the disease is termed chronic glanders; when the two are combined, it is termed acute glanders."[1] Judged by this rule, the present case must be considered as one of acute glanders, because there was both fever and local inflammation combined. The patient had indeed suffered from febrile symptoms for a week before any local inflammation declared itself, and up to the time of his admission had frequent rigors, succeeded by heats and cold sweats, and attended with lassitude and extreme prostration.

With regard again to the supervention of ecchymosis, gangrene, etc., in the pituitary membrane, it would appear from Mr. Blane's description of the disease in the horse, that the period of their occurrence varies very much in different cases. In describing chronic glanders, he says: "An increased and diseased secretion from the membrane of one or both nostrils continually flows in small or large quantities. The discharge is seldom at first perfectly purulent, but is more glairy, thick, and not unlike the white of egg, and it sometimes continues thus for a long time; at others, it soon becomes purulent, but even then there is always a degree of viscidity and glueyness in it that sticks the nostrils together as it were from its tenacity; thus differing from other pus, and which very circumstance strongly characterises the complaint. . . The disease sometimes remains long without producing ulceration; at other times, on the contrary, an ulcerating process quickly appears."[2] This quotation would show, that in the horse, inflammation of the Schneiderian membrane, attended with a discharge of a peculiar nature, viz., one possessing extreme viscidity and glueyness, is alone considered to be characteristic of the disease, and this feature was strongly marked in the present case. The patient's nostrils were filled with an offensive secretion, so adhesive, that it was only with difficulty that it could be got rid of, and it completely closed them up, so as to prevent the passage of air. But, independently of this, it appears to me, that the history of the case is alone sufficient to establish the diagnosis. The man was in good health when he undertook the care of several glandered horses; for a week he scarcely ever left the stable, and was with them, on an average, from five in the morning until eight in the evening. All this time he was necessarily breathing a very fetid and unhealthy atmosphere, and his face was often covered with the diseased secretions of the horses. At the end of a week, febrile symptoms manifest themselves, attended with great prostration; he perseveres in his employment, and in another week is attacked with headache, giddiness, and those peculiar affections of the salivary glands, mouth, and pituitary membrane, which must be considered as constituting the incipient, if not the confirmed, symptoms of glanders. This history alone, as I have re-

[1] Williams, R., M.D. Elements of Medicine, vol. ii, p. 376.
[2] Outlines of the Veterinary Art. Third Edition; p. 458.

marked, appears to be sufficient to establish the diagnosis, and I am supported in this view by an eminent authority. "It is impossible, perhaps", says Dr. Williams, "to enumerate every difficulty that may occur in the diagnosis, but when any doubt exists, an inquiry into the habits and employment of the party will probably solve the problem."[1]

Mode of Communication. Another point of interest in the case is the manner in which the disease was communicated to the patient, whether by infection—*i. e.*, through the atmosphere, or by direct contact with the diseased secretions; and in this latter case, was the surface to which they were applied abraded or entire? It was observed by Dr. Elliotson, in his valuable paper in the sixteenth volume of the *Medico-Chirurgical Transactions*, that he presumed that an abrasion of the surface to which the poison is applied is necessary for the production of the disease, because, he says, most veterinary surgeons are satisfied by experience that the matter of glanders never excites it in the horse, even if applied to the pituitary membrane of the nostrils while the surface is entire. The result of my inquiries in the present case would tend to shew that this opinion is incorrect, while it is at variance with the results of experiments which have been performed upon the lower animals. Thus we are informed that glanders has been produced by inserting the virus under the cutis with a lancet, and by rubbing it on the greasy heel of a horse. It has also been produced by inoculating the mucous membrane of the nose of the horse, or else by smearing that membrane with farcied matter. Farcied matter has also been made up into balls, and introduced into the stomach of a horse, and glanders has resulted. There can be no doubt, therefore, that the poison is absorbed both by the mucous and cutaneous tissues, and that being absorbed, it infects the blood.[2] In the present case, the patient assured me that he had no scratch or abrasion whatever of any surface upon which the morbid secretions were received; and hence the disease must have been given him either by infection, or by the application of the glanders matter to a mucous or cutaneous surface free from abrasion.

That he was favourably predisposed to take such a disease, will hereafter appear; but the manner in which the disease was communicated is important, because it tends to shew, that where a predisposition exists, it may be taken more readily than has been supposed; and that in regard to such persons the disease is as eminently contagious as others that result from morbific animal poisons. In the two first cases reported by Dr. Elliotson, in his interesting memoir, the virus was supposed to have been received through an abrasion of the cuticle; and this was also the case in the others referred to, or at least in all those in whom the mode of communication could be ascertained. This may explain a circumstance by which the present is distinguished from the majority of cases which have been related by him. I refer more particularly to the absence of specific disease of the cellular and cutaneous tissues, as well as of the lymphatic system, which would readily be accounted for if the poison were received into the system through the atmosphere, and the disease arrested before it had produced any secondary affections. Whether, however, this is

[1] Williams, R., M.D. Elements of Medicine, vol. ii, p. 391.
[2] Ibid. p. 374.

the case or not, we are justified in concluding that glanders may be communicated to man more readily than has been supposed, and in the absence of those conditions which have been considered as necessary for its production. Hence too much caution cannot be practised by those who have the charge, or are exposed to the effluvia of glandered horses, whether as regards breathing the atmosphere of their stables, or avoiding contact with their diseased secretions.

Period of Latency. I am not aware that any facts have been collected on this point, bearing upon the disease as met with in the human subject. Dr. Robert Williams observes that the poison in general has been latent from two to eight days, but he gives no facts, nor the data upon which this statement is founded. In the present case I questioned the man particularly on this point; and it appears that constitutional symptoms, viz., sickness, rigors, and fever, commenced on the seventh day after he had been taking care of the horses; and that the swelling of the face, the affection of the salivary glands, and that of the pituitary membrane, took place on the fourteenth.

Predisposing Causes. That this patient was predisposed to the disease, or rather that the state of his constitution was such as to render it susceptible to the operation of any disturbing causes which might surround it, would appear to be almost certain from a consideration of his previous history. For some time before he took charge of these horses, he had been in very destitute circumstances; badly fed, lodged, and clothed. His constitutional powers must therefore have been enfeebled, and his capability of resisting morbific influences consequently slight, and hence we may account for the ready manner in which he succumbed to the specific causes of the disease. So far, then, the case furnishes additional testimony to the truth of the doctrine, that debility, however induced, whether by want or illness, favours the extension of fever, of epidemic, and infectious diseases; and it supports the general observation that has been made in regard to glanders, that the parties who have generally contracted it have been of intemperate habits, or have had indifferent health at the time of their falling ill or contracting the disease. As this patient was exposed both to an infected atmosphere, and had also the diseased secretion applied to his face, it is difficult to say in which of the two modes it was communicated. The history of his attack would lead me to think, as I have observed, that it was most probably through the atmosphere; and there is no reason to doubt that, under certain circumstances, it may be so communicated. It is well known, for instance, that in horses the glanders often originates in this way; and all farmers are agreed that dirty, close, and ill ventilated stables, out of which the dung is seldom removed, and the situation low and damp, are fruitful sources of it. Whether the disease is thus communicable to man, has not been as clearly ascertained; for the most part, we should be justified in saying that it is not, because numbers often breathe an infected atmosphere without catching the disease. But this immunity cannot be regarded as universal, or as exempting those who are strongly predisposed to it, whether from ill health, intemperance, or destitution.

Treatment. In offering some remarks upon the treatment of the

present case, I cannot introduce the subject better than by quoting the following passage from Dr. R. Williams's philosophical work *On Morbid Poisons*. "All the remedies hitherto tried in acute glanders have failed, for only one out of fifteen has recovered, and that not from any particular treatment. Blood, when taken at the commencement, has been found buffed, and some momentary relief has been afforded, but the bleeding ought not to be repeated, as in the more advanced stages the prostration is great, and stupor quickly follows, and leech bites have become gangrenous. The coming on of typhoid symptoms has caused quina, valerian, serpentaria, ammonia, and other stimulating medicines to be exhibited, but all these experiments have failed; vomiting and purging have been likewise had recourse to, but these measures have been equally unsuccessful. In the present state of our knowledge of this disease, every experiment in treatment is warranted as the only chance of subduing a malady which has so constantly proved fatal. In the more chronic forms of the disease, the recovery of the patient has appeared rather to be owing to the excellence of his constitution, than to any powerful effect produced either by general or local treatment."[1]

In the present instance, I had no reasonable expectation of the patient recovering, nor had he, or any one who was present at the time when I first saw him; and yet in twenty-four hours he was comparatively out of danger. Now this change cannot be ascribed to any improvement in his sanitary condition consequent upon coming into hospital. For, in spite of wine and other assistance, he was worse then than when he was admitted. Hence I think that the improvement which took place must be mainly attributed to the treatment, which may be thus recapitulated in the order of sequence. 1st. An incision in each of the Whartonian ducts. 2ndly. An emetic of ipecacuanha. 3rdly. Sesquicarbonate of ammonia in water hourly, as concentrated as it could be swallowed. 4thly. An opiate at bed time, with wine and nourishment, in such quantities as the patient could be prevailed upon to take.

The incision was made in the Whartonian ducts on account of their being much distended, and from an impression that their orifices were closed from the swollen state of their parietes. It gave immediate relief to the patient, by allowing a free escape of a large quantity of pent-up saliva, and the swelling and tension of the parts were at once lessened by it. The emetic was considered to be indicated by the existence of gastric derangement throughout the progress of the case, which was manifested by a constant disposition to sickness, and the inability of the patient to retain anything upon his stomach. It was also given for the purpose of producing reaction, and rousing the constitutional powers by its operation upon the ganglionic nervous centres.

But the principal reliance was placed upon the frequent administration of the sesquicarbonate of ammonia *in a concentrated form*. This remedy, and this mode of exhibiting it, were suggested by the good effects which I had seen it produce when so given in the severe affections of the throat, which are met with in malignant scarlet-fever. It was originally recommended by Dr. Peart in such cases,

[1] Op. cit., vol. ii, p. 392.

in a work on the malignant scarlet-fever and sore throat, which he published in 1802; and its efficacy is corroborated by Mr. Wilkinson, who quotes also the testimony of Mr. Ricardo in its favour. As, however, the works in question are not very accessible to the profession, and as in the particular case under consideration, it appeared to have been most beneficial, and to have been the main cause of the patient's recovery, I shall add a few remarks upon the remedy as thus exhibited.

Ammonia is reported to have been given in glanders, but without success; and the same remark has been made with reference to its exhibition in scarlet fever: but it is not so much to the medicine, as to the method of giving it, that we are, I apprehend, to look for beneficial results. On this point, Mr. Wilkinson remarks: "It has been observed that Dr. Peart has no claim to originality in the employment of the subcarbonate of ammonia in the cure of scarlatina, Dr. Withering having used the same remedy many years before: but may there not be almost as much originality in the *manner* of exhibiting a remedy, as in the first adoption of it? Dr. Withering says, that the volatile alkali may likewise be given with advantage; but it is difficult to get a sufficient quantity of it swallowed (p. 84); and he prescribes it in the following form. ℞ Sal. absinth. ʒij, sa. vol. ammon. ʒss, aq. fontan. ʒij. M. Ft. solutio, to be put in a quart of white wine whey, and the whole to be taken in twenty-four hours; by which it appears to me that he knew little of the powers of subcarbonate of ammonia in this disease. His manner of exhibiting it would destroy its effects, or at least the effects upon which I should depend for its advantages in scarlatina."[1] These remarks appear to me to be equally applicable to the treatment of glanders with ammonia, as it is ordinarily given.

On the other hand, it was an essential part of Dr. Peart's treatment of the scarlatina, anginosa, and maligna, that it must be given in a state as strongly stimulating as it can be swallowed. His mode of exhibiting it is contained in the following passage, which is quoted from Dr. Willan. "He dissolves two drachms of the carbonate of ammonia in five ounces of water, and directs the patient to take two teaspoonfuls every two, three, or four hours, according to the urgency of the symptoms. If the difficulty of swallowing abate, and the patient wish for it, a little cold water may be added to each dose. Cold water, or toast and water, may be drank at pleasure. The above remedy was given in every form and in every stage of the scarlatina. Some," he says, "were glowing with universal efflorescence; in some the extremities were swelled; in others fetid ulcers appeared; in most the throat was swelled and inflamed, often ulcerated, and respiration almost prevented; but, in the most alarming cases, a scorching fever and raging delirium rendered the patient's situation horribly distressing. Yet, in all these variations of the disease, the volatile alkali was my specific, which I administered to between two and three hundred patients *successively and successfully*." The immediate effects of the remedy are stated to be, a diminution of heat, fever, and delirium, and a disposition to sleep. Mr. Wilkinson confirms the accuracy of these remarks; and, in regard to the *modus operandi* of the medicine,

[1] Wilkinson, J. H. Remarks on Cutaneous Diseases, pp. 19-20. Lond.: 1822.

says: "I will take the liberty to state, that I depend not upon its diuretic nor its diaphoretic qualities, but believe that it possesses the power of increasing the strength of the arterial action, at the same time that it diminishes its frequency; that it supports the vis vitæ, without increasing the heat or irritability of the system; and by such means counteracts the tendency in the scarlatina, anginosa and maligna, to ulceration and sloughing, and all the other evils which sometimes attend this dreadful disease."[1]

Mr. Wilkinson further gives the following practical illustration of the success which attended the treatment of scarlet fever in this way. "In the year 1803," he says, "I attended several cases of the scarlatina maligna with Dr. Willan and the late Dr. Hamilton. It is well known that the disease raged most fatally during that period; and we lost four of our patients out of five in one family. Never were men more puzzled to know what remedies to adopt. All which Dr. Willan has recommended in his publication were employed. Emetics, purgatives, calomel, and antimony, many other diaphoretics, opium, wine and acids, bark, blisters, decoct. contrajervæ with oxymel of squills, application of cold water, gargles of different descriptions, fumigations, etc., all without the least good effect, all without making the least sensible impression upon the disease in any of its stages. About this time, Dr. Peart published his *Practical Information on the Malignant Scarlet Fever and Sore Throat*, in which he describes the wonderful effects of the subcarbonate of ammonia, and considers it to be endowed with a specific power over that disease. Like other practitioners, he was continually lamenting the loss of his patients by that dreadful malady, till, by his own suggestion, he employed the subcarbonate of ammonia in the manner he describes; and from that moment he did not lose one patient, out of nearly three hundred. When I read this account, I immediately inquired after the character of Dr. Peart, and finding that he was most respectable both in talent and probity, and engaged in very considerable practice, I had no reason to doubt the truth of his statement, and therefore immediately adopted his remedy; and consonant with my own principle, that an effectual remedy for one genus, will, with proper management, cure all the genera of the same order, I administered it in all the following diseases—erysipelas, rubeola, scarlatina, urticara, roseola, and erythema, with all their varieties; and I am happy to be able to declare, that from that moment to the present, a space of seventeen years, I have not only never lost a patient in the above diseases, but have never had a case of the kind that has even appeared dangerous, or that has given me a moment's anxiety."

In addition to his own, he adduces the following testimony to the remedial powers of ammonia, when so given, from Mr. Ricardo, of Bow, a gentleman of great ability, and very extensive practice: "I have received your letter, requesting me to state the result of my experience of the effects of subcarbonate of ammonia in the treatment of measles, scarlatina, and erysipelas. As I employed this medicine at your suggestion, many years ago, I lament that I have not placed on record any *particular* cases, many such having been under my care; but perhaps it may be sufficient for your purpose, that I am able to

[1] Op. cit., p. 20, et seq.

declare that the exhibition of subcarbonate of ammonia in such cases has been attended, under my direction, with constant success. You know that I am situated in the neighbourhood of many schools, which I have the pleasure of attending; and during twelve or fourteen years, in which I have employed the subcarbonate of ammonia, I have not lost a single patient, of some hundreds whom I have attended in the above diseases."

I have quoted these passages at some length, not only because the plan of treatment they refer to was adopted in the case of glanders which I have reported, with very striking results, but because I believe that the principle comprehended in it is applicable to many other analogous diseases, in which it has hitherto not been tried; and, further, because I am anxious to do justice to those with whom the merit of originating it rests. It furnishes, moreover, a good illustration of the practical views which abound in the writings of our predecessors; and of the many useful facts and suggestions which are to be met with in what may be termed the indigenous medical literature of this country; and, although at the present day a preference is too often given to doctrines which have been imported, whose chief recommendation is their novelty, it would be difficult to find, in any medical records, richer or more valuable contributions, and such as are likely to be more permanently useful, than those which have been made by the zeal and persevering industry of our forefathers. I cannot doubt of the utility of this particular mode of treatment, in this and other diseases in which I have tried it; and I have less hesitation in recommending it to professional notice, as I do not lay any claim to the merit of introducing it. I would, however, observe, that there is much in the history of glanders which assimilates it to the more malignant forms of scarlet fever. Both, for instance, arise from a specific contagion; in both there is a similarity in the parts which are more especially implicated, viz., the throat, the respiratory mucous membrane, and the salivary glands; and in each there is a tendency to ulceration, sloughing, and destruction of the tissue of these parts. These circumstances furnish grounds for believing, *a priori*, that the medicine which would be best adapted for one disease, would be most curative of the other; and this conclusion, which is suggested by careful reflection, is confirmed by practical observation, so far at least as the issue of the present case is concerned.

It is unnecessary to dwell upon the other items of treatment; the use of opium was clearly indicated upon general grounds. The employment of gargles of the chlorides of lime and soda in ulcerative affections of the mouth and throat, has been long sanctioned by general experience; and there could be no doubt as to the necessity of administering wine freely, with such support as the patient was able to take.

Chester Place, Hyde Park Gardens, August 1851.

ON A NEW APPARATUS FOR FRACTURED CLAVICLE.

By HENRY LEE, Esq., F.R.C.S.Eng., Assistant-Surgeon to King's College Hospital; and Surgeon to the Lock Hospital.

The principal use of the clavicle in man is to keep the shoulder at the requisite distance from the body, and, by affording it an unyielding support, to enable the muscles to move it, and to maintain it in position. When the clavicle is broken, the shoulder falls in, being drawn by the action of the muscles into contact with the ribs. It also falls, in obedience to the laws of gravitation, according to the position of the body. In the erect position, therefore, the shoulder will be found lower than natural, as well as to have lost something of its lateral prominence.

Different methods have been proposed for the treatment of this fracture. The most common method is the figure-of-eight bandage applied about the shoulders. This keeps the two scapulæ on the back of the chest, and prevents their anterior edges from falling forwards. Some degree of extension is made in this way, but still it rarely happens that the fractured extremities can by this means be brought into apposition; and one reason of this is, no doubt, that it affords no provision against the shoulder falling by its natural weight.

A second plan of treatment, which may, with certain modifications, be combined with the former, is that of M. Desault. This consists of a cushion, in the shape of a wedge, placed in the axilla, with the broad part upward. The thin point is prolonged so as to reach as low as the short ribs. This cushion is retained in its place by a bandage, and the arm is bound down upon it. The upper part of the cushion thus acts as a fulcrum, the part of the humerus below it as a lever, and the shoulders are by this means drawn asunder. An artificial clavicle is thus formed, while the natural one is being repaired. This apparatus is, however, very difficult to apply, and demands that the patient should be kept at rest afterwards. In a few days, even with the greatest care, the bandage will require to be readjusted, and this necessarily involves a disturbance of the fractured extremities. But the chief objection to this apparatus lies, perhaps, in the circumstance of the cushion resting upon the moveable ribs. As the extending power is always the same, and depends upon the elbow being fixed by an unyielding bandage, it follows, that any motion which is allowed at the point of support, or at the fulcrum, must necessarily be communicated to the free extremity of the lever; and, consequently, in the case before us, would tell upon the fractured portion of the clavicle.

A third plan, which has recently been adopted for fracture of the clavicle, is that which was suggested by Mr. Ellis. It consists in the adaptation of a firm cushion, in the shape of the top of a crutch, to the axilla of the affected side. This rests upon a vertical plate, which reaches nearly as low down as the crest of the ilium. The apparatus is supported and retained in its position by a band extending over the opposite shoulder. Extension is then made by using the arm as a lever, as in Desault's method of treatment; but, as in that, the cushion which forms the fulcrum is constantly liable to move with the motions of the ribs.

Messrs. Philp and Whicker, of 67, St. James' Street, have, at my request, constructed an apparatus, by means of which lateral extension can be made in cases of fractured clavicle from a fixed point. It consists of a backboard, retained in its position by two broad straps crossing over the shoulders, and by a perpendicular plate reaching to the loins, and connected with a band round the waist; a firm cushion is adapted to each axilla, and extends to the front of the shoulder-joint. To the anterior extremities of these, the straps which go over the shoulders are buckled. Each cushion is directly connected with the backboard by means of a steel bar, slightly concave forward, and capable of being extended laterally and fixed in position by means of a screw. When applied, the two cushions are separated to a convenient distance and fitted to the axillæ. The straps are drawn moderately tight over the shoulders, and the elbow of the affected side is connected with the body by means of a handkerchief or bandage. It is advisable also to support the arm in a sling; and this may be conveniently done by passing a broad band from the elbow in front and behind the arm to the opposite shoulder, below which the cushion in the axilla affords a fixed point for its attachment.

The principal advantage of this apparatus consists in its different parts being so connected and adjusted as not to move with the motions of the ribs; for as these are raised, in all their ordinary actions, simultaneously on both sides, any influence which they possess must be exercised equally in different directions; and as corresponding parts of the apparatus are placed upon the two sides of the chest, any tendency to displacement is exactly met and counteracted by a similar tendency from the opposite side. The result is, that although the cushions rest upon the ribs, they yet do not move with the ribs, but afford firm, and comparatively fixed points of support.

A second advantage of this apparatus consists in its not requiring to be readjusted; should the bandage round the body, or the sling which supports the arm become loose, they may be tightened without in any way disturbing the position of the instrument, or the fracture.

A third point of some importance is, that the arm on the opposite side to the fracture is not confined, and the patient may, in ordinary cases, be allowed to walk about as soon as the instrument is properly adjusted.

In severe fractures of the clavicle, and in such as are complicated with injury to the ribs, it may become desirable to remove all pressure from the side of the chest.[1] This may readily be accomplished by increasing the distance between the two cushions, and connecting *both* the arms with the body. Any amount of lateral extension may in this way be made without any pressure upon the ribs, and even without interfering in any degree with their actions.

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[1] It was reported in the case of the late Sir Robert Peel, that he was quite unable to bear the pressure of the ordinary clavicle bandage upon the chest.

CASE OF COLLOID OR GELATINIFORM CANCER OF THE PERITONEUM AND COLON; WITH REMARKS.

By ROBERT HUNTER SEMPLE, M.D., and EDWARD BALLARD, M.D.

Case. Mary Hall, aged 66, an inmate of the Islington Workhouse, moderately well-formed, rather thin and pale, but not remarkably so, presented herself for medical relief on the 23rd of April, 1851. She complained of pain in the bowels, with purging, and some vomiting. She did not represent her case as a serious one, and she was not in the infirmary. The disease was considered as a common disorder of the bowels; and she was accordingly ordered to take the following: ℞ Tr. opii ʒss, mag. carb. ʒss, sulph. mag. ʒij, aq. menth. pip. ʒvj. Sumat coch. ij magna 4tis horis.

April 25. The pain in the stomach and bowels was not relieved; the tongue was furred; the skin hot and dry; purging still continued; vomiting had ceased. She was ordered to take the following: ℞ Hydr. c. cretâ, pulv. ipecac. co., āā gr. iij. Fiat pulvis 4tis horis sumendus. She improved slightly under this treatment; but, as she did not lose all the symptoms, she was ordered into the infirmary, in order that she might be seen and examined in bed.

April 28. She was now lying in bed, undressed, and the state of the abdomen was carefully examined. It was generally soft and yielding, and resonant; but, owing to the pain experienced in the manipulation, the abdominal muscles were put upon the stretch, which considerably obscured the physical symptoms. It was very evident, however, that a dulness existed below the stomach, and there was a feeling of an irregular, soft, tumefied mass in that situation. The palpation of this tumid part caused great pain, and the pain was not at all relieved, but, on the contrary, was very much increased by pressure, especially by firm pressure. There was want of appetite, furred tongue, dry and hot skin, thirst, and diarrhœa; the stools were fluid and frothy, but not fæculent; the pulse was rapid and rather full. Under these circumstances, Dr. Semple considered that, whatever the disease might ultimately prove to be, there was, at the period now described, a local inflammation of the colon, and that, although there was diarrhœa, there was nevertheless abundance of fæcal matter impacted in the intestine, which might probably be the cause of the present mischief. This opinion was founded upon the circumstance, that Dr. Semple had often observed in old persons who neglected the state of their bowels, that great fæcal accumulations often led to inflammatory conditions of the intestinal canal, and that, although in such cases diarrhœa often existed, it should not be allowed to mislead the practitioner, and to induce him to trust to astringent remedies. There was at this period no emaciation, nor any other appearance to lead to the suspicion of organic disease. She was therefore directed to remain in bed, to take liquids for her food, *and to apply eight leeches over the situation of the supposed tumour*. She was also directed to apply warm poultices after the leeches were removed.

April 30. She was decidedly relieved by the application of the leeches, which had bled well; but there was still a great degree of tenderness on

pressure, and the diarrhœa continued. The muscles of the abdomen being now less contracted, there was felt a distinct tumefaction over the course of the colon. Under the impression that there was inflammatory disease, and that, notwithstanding the diarrhœa, there was still an accumulation of fæculent matter in the intestines, the following plan was recommended. Six more leeches were directed to be applied over the region of the colon, and the leech-bites fomented as before. The following medicines were also ordered: ℞ Hydrargyri chloridi gr. ij, opii gr. $\frac{1}{3}$. Ft. pilula 6tis horis sumenda. ℞ Tincturæ catechu ʒij, aquæ menth. pip. ʒvj. Sumat cochlearia ij magna 4tis horis.

May 2. She was decidedly better: the tenderness on pressure was very much relieved; the diarrhœa was less frequent. She was directed to continue the medicines.

May 3. Her bowels had now become confined, and she was accordingly ordered to discontinue the former medicines, and to take an ounce of castor oil.

May 4. She now reported that she was very much better; the tenderness had almost disappeared; her tongue was cleaning. She stated, that during the night she had been to the water-closet and had passed, with great difficulty, some hard lumps like stones, but which unfortunately she had not preserved, and that the evacuation of these masses was attended with immediate relief. Dr. Semple therefore considered, that his conjecture as to the existence of hard fæculent masses in the intestine had been correctly formed; and he therefore, in order to evacuate any remaining portions of such matter, directed her to take an ounce of the common purging mixture, consisting of salts and senna, every four hours. (It will be seen, by reference to the *post-mortem* examination, that there was a large quantity of fæcal matter found in the intestines after death.)

May 8. The patient was still improving, and expressed herself better in all respects; she slept well at night, and had very little pain in the abdomen. She complained, however, of flatulence, acidity of the stomach, and want of appetite, and she was accordingly ordered the following: ℞ Liq. potassæ ʒij, essentiæ menth. pip. ʒss, infus. gentianæ ʒvj. Ft. mist., cujus sumat coch. ij magna 4tis horis.

May 9. She now complained of some feverish symptoms, as hot, dry skin, furred tongue, and thirst, and she was accordingly ordered to take the following febrifuge mixture. ℞ Antimon. potassio-tart. gr. j, sp. æth. nitrici ʒij, liq. amm. acet., et mist. camph., āā ʒiij. M. Ft. mist., cujus sumat coch. ij magna 4tis horis. This medicine allayed the feverish symptoms.

She now became so much better that she was able to leave her bed, and, at her own request, was allowed a mutton chop daily, with half a pint of porter, which she duly consumed; and the only medicine she took was an occasional dose of infusion of gentian, which she found to strengthen her. After the lapse of about a month, however, she again began to complain of pain in the abdomen, of sleepless nights, and of a deficiency of appetite. She was often examined carefully, and the tumefaction over the region of the colon was distinctly recognised; the tumour, however, was soft and quite moveable, and there was no nodulation apparent in any part. At this time, Dr. Semple suspected the existence of organic disease, and expressed an opinion

that the nature of the case was one of the soft forms of cancer, and, indeed, he considered it to be a tumour of medullary sarcoma. Under this impression, she was ordered to take small doses occasionally of tincture of henbane in peppermint water.

June 17. The pain was not diminished by the use of the henbane; she had sleepless nights; and her appetite, although not lost, had become capricious, and she was allowed, at her own request, to have sometimes fish, and sometimes eggs, in place of the mutton chop. In order to allay the pain, of which she continually complained, she was ordered to take twenty minims of tincture of opium every four hours in peppermint water. This produced some alleviation of the pain, and she accordingly took it every day for a considerable time. The case was now regarded as hopeless, and the symptoms of organic disease became quite apparent; the features became shrunk, there was excessive emaciation, and total loss of appetite; the pulse was rapid, and very feeble; she retained her consciousness throughout, and wished for death to release her from her sufferings. She never had any fæcal vomiting, nor was she latterly troubled with vomiting at all. She was ordered to take the opiate occasionally. She gradually sank, and died on the 29th of July.

Post-Mortem Examination of the Body, made on the 30th of July by Dr. Ballard and Dr. Semple.

Conformation. Spare; muscles pale; scarcely any subcutaneous fat.

Head. Brain quite healthy.

Chest. Pleuræ both healthy; no adhesion; lungs slightly emphysematous; a little puckering with cretaceous matter at the apex of each; heart small.

Abdomen. The tumour perceived during life was evident on handling the abdomen; it was firm, and slightly moveable, emitting a dull sound on percussion, bordered by resonance of the intestines below, and of the stomach between it and the hepatic dulness above. It extended across the abdomen, in the direction of the transverse colon, an inch below the umbilicus; and, on opening the abdomen, the parietes were found strongly adherent to it, in the middle line, over a circular extent of about two and a half inches diameter. The situation of the parts then displayed was as follows: The tumour, which turned out to be in the transverse colon, lay across the abdomen, at the level mentioned; and the stomach, which was of full size, occupied, with the liver, its natural position, a part of it lying between the tumour and the edge of the liver. The cæcum and ascending colon were not found in their usual position, but placed in a line with the transverse colon; the cæcum occupying a position in the right flank, and the extremity of the ileum crossing the iliac fossa to enter it. The small intestines were tolerably filled with flatus. The sigmoid flexure was lying altogether within the pelvis; and, with the rectum, was filled with solid fæces. With the exception of the serous covering of the liver, spleen, and stomach, every part of the peritoneum, parietal and visceral, together with its folds, was studded with minute granular elevations, which rendered the surface rough to the finger passed over it. Each granule was surrounded by a little zone of redness. At first sight, they were taken for miliary tubercles; but, on the nature of the tumour being discovered, they were subjected to closer examin-

ation, and found to consist each of a little bit of gelatinous matter, enclosed in the substance of the serous membrane: in no case were the grains found to be bilocular. There were but few on the diaphragmatic peritoneum, and at the upper part of the abdomen; but were more abundant, and placed closer, over all those parts which lay below and towards the pelvis: here, too, some were larger, and nearly of the size of small peas. The tumour consisted of the transverse arch of the colon, which was adherent above to a part of the great curvature of the stomach, and below to a part of the jejunum; and it presented externally a purple discoloured appearance. On handling it, part of its substance gave way, and a portion of the contents passed into the peritoneal cavity. The cæcum was filled with liquid fæces. On passing the finger from it into the tumefied transverse colon, the canal was found so contracted as scarcely to admit it for about six inches. It was laid open throughout, and the nature of the disease then became evident. Throughout the contracted portion, the internal surface was raised into large rugose elevations of irregular shape, but most of them with their long diameter placed transversely. The wall of the intestine was thickened to the extent of from one-eighth to half an inch. The whole rugæ and intestinal wall were filled with locular colloid cancer, which had evidently first infiltrated the mucous membrane, and then passed through the muscular coat to the serous, which in some parts it had infiltrated also; in other parts, this membrane passed unaltered over the colloid matter. Near the commencement of the descending colon, there were small isolated elevations, of the size of a pea and larger, on the mucous surface, each consisting of gelatiniform matter contained in loculi. The cell in many parts opened upon the free surface of the membrane, which here exhibited, when examined in water, a reticulated appearance. At the adherent part, the mucous membrane of the stomach presented some purple discolouration; and, on floating out the mass of disease in water, several foramina were observed, by which a probe could be passed from the stomach into the contracted part of the colon. The rest of the stomach was healthy. The liver presented the appearance known as biliary congestion: the gall-bladder contained thirty largish angular gall-stones, two of them firmly impacted in its duct. The spleen was natural. The left kidney was small, with a lobulated exterior, and felt soft and fluctuating. On section, it was found universally hollowed out into cysts, as large as a hazel nut, most of them containing a clear serous fluid; none of the natural tissues of the organ remained. The right kidney was nearly twice its natural size, and at its lower extremity presented three or four cysts, similar to those in the left; but the whole upper two-thirds was hypertrophied, soft, and watery. The ovaries were small and hard. The uterus was small, but healthy. The bladder was healthy.

Remarks. The rarity of the occurrence of colloid as compared with that of scirrhous and the encephaloid forms of cancer, and the little frequency with which cancer of the large intestine (except of the rectum, perhaps) is met with at all, give an interest to this case. Judging from the appearance of that part of the colon where the disease was in an incipient state, the infiltration commenced in the mucous membrane, and extended from this through the thickness of the wall of the intes-

tine. Along with the progress of the infiltration, a process of shortening of the canal appears to have gone on, which, as the shortening portion was fixed by adhesion, resulted in the traction from their natural position of the cæcum and ascending colon. In a case of gelatiniform cancer of the peritoneum, published by Dr. Ballard in the *Medico-Chirurgical Transactions*, the advanced result of this affection, when occurring in the serous membrane, was exhibited. The present case is of interest in connexion with that, as shewing how the disease may commence in single loculi, scattered like tubercles on the surface of the membrane. Had this patient lived, no doubt more of these granules would have become developed; they would have formed an uniform layer over the membrane, new loculi would have become developed about them, and complete infiltration, with thickening of the membrane, would, as in that case, have been the result. In this instance, the disease of the serous membrane, though plainly consecutive to that of the colon, evidently arose independently of it, and, from its appearance in so many different foci, could only be supposed to have occurred from general contamination of the nutritive system with the sort of cancerous diathesis. It may be observed further, in connexion with the case, that it occurred, as colloid cancer mostly does, in a female.

The history of the case, as recorded by Dr. Semple, though pointing to the large intestine, and especially to its transverse arch as the locality of the disease, by no means indicates its nature. Indeed, apart from a consideration of the general symptoms, we do not see how even its seat could have been discovered with any accuracy, by the amount of physical exploration employed.

There are three other points to which we desire to direct attention. One of these is the absence of any fæcal vomiting, as symptomatic of the communications between the stomach and the colon, and the absence of fæcal matter at all in the former after death. The fact was, that the communications were by foramina, which appeared to have been formed by the breaking down of cancerous loculi, which had reached through the adherent organs; and not only were the communications blocked up by gelatinous matter, but they were probably closed also by pressure of the cancerous developments bounding them. Another remark we have to make, is on the absence of the cancerous aspect so commonly observed in the cachexia which accompanies the occurrence of other forms of cancer. The same absence of sallowness was observed in the case before referred to, and would appear to place some more marked distinction than is at present recognised between colloid cancer and the other forms of the disease. Our third remark is in connexion with the fact, that colloid cancer does not kill the patient, as scirrhous and encephaloid often do, by a general effect on the blood and nutrition of the body, but may go on increasing and extending its ravages far and wide, in the part that it attacks; the patient meanwhile only suffering from the encroachment it makes upon the functions of parts, whose healthy action is more or less necessary to life. This is illustrated in the case before us. The immediate cause of death was the contracted state of the large intestine, and would have taken place in the same manner, had the cause of the contraction been inflammatory or hypertrophous, in place of being cancerous. In Dr. Ballard's case, again, no constitutional symptoms of cancer

were present, the symptoms which the patient presented being due to the pressure of the new formation upon the organs of the chest and abdomen; and the patient died as if she had been worn out with ascites, ovarian tumour, or any other disease acting in a similar manner.

CLINICAL ILLUSTRATIONS OF DISEASES OF THE NERVOUS SYSTEM.

By ROBERT HUNTER SEMPLE, M.D.

CASE OF ACUTE SUICIDAL MANIA TERMINATING FATALLY.

Case. Henry Staples, aged 23, a boot-closer, of average size and conformation; thin, spare, rather tall; rather good-looking than otherwise.

Previous History. His father had been twice insane; the first time, was upwards of twenty years ago, when he was very gloomy, melancholy, and desponding; and, according to the account which I received from his eldest son, he was in a state of insanity when the subject of the present case was conceived. About ten years ago, the father made an attempt upon his life by cutting his throat, and was accordingly taken to St. Bartholomew's Hospital, where he was kept closely watched and under restraint, and where he eventually recovered; and was now (July 1851) in a sufficiently sane state to manage his affairs. I was informed that the subject of the present case had been well brought up, and had been educated as well as, or rather better than persons in his rank of life usually are; he was by no means ignorant. His brother stated that, from his earliest youth he had exhibited symptoms of moroseness of disposition and sulkiness; but that he now attributed these peculiarities to the influence of hereditary mental disease. He was reported to have been always a very steady young man, attentive to his work, esteemed by his employers, and not at all addicted to drink, or to sexual indulgence.[1]

On Friday, July 4, 1851, an alteration was observed in his manner; he complained of unusual lowness of spirits, and began crying like a child; he had also pains in his limbs, and general uneasiness. On Sunday morning he rose from bed, and talked in a wild and incoherent manner; he also began dancing and capering about the room. Three of his acquaintances came in to see him, and proposed an excursion to Epping Forest to raise his spirits and to amuse him. It appears that they took him with them, and gave him some cold brandy and water, together with ale and ginger-beer. It does not appear that they drank much; but, when the subject of the case came home, he was furiously delirious. In consequence, a medical man was sent for, who administered some medicine, and told the relatives that he would pass some

[1] His brother has told me, that he used to have frequent conversations with him, and that he often complained of lowness of spirits; that, from reading some medical book, he had come to the conclusion that he had injured himself by extreme continence; and that he was continually in dread of alienation of mind.

black stools, and that, after doing so, he would be better. On Monday morning he was rather better, but in the afternoon he was seized with general trembling and crying. During the night of Monday, he made repeated attempts to strangle himself, by placing his thumbs over his throat, but these attempts were observed and frustrated by his brothers. On Tuesday he dressed himself, and went out with one of his brothers, but was evidently extremely uneasy in his mind, reproaching himself that *he had never got married*, that he had injured his health by extreme continence, and that he should become an idiot. During Tuesday night, he became worse, and was almost uncontrollable, and tried to destroy himself in whatever way he could, by using the instruments and tools employed in his trade. On Wednesday morning, at six o'clock, he was taken out into the air by his brothers, in the hope of soothing him; but, on their leaving him for only a few yards behind them, they perceived, on looking back, that he was knocking his head violently against a lamp-post. He was then brought home when his family were at breakfast, and, when unperceived for a moment, he seized a knife and drew it across his throat, but the knife was immediately secured by one of his brothers. He was then taken out again for the purpose of diverting him, to the house of one of his brothers; but while there he tried to jump out of the window, and also to strangle himself with his handkerchief; in fact, he made every attempt in his power to destroy himself. On Wednesday afternoon, he was seen by Mr. Hutchinson, one of the parish surgeons of St. Mary, Islington, and he was sent by him, on a lunatic certificate, to the Islington Infirmary, with a view to his conveyance to a lunatic asylum. He had now become so excessively violent, that it was impossible to restrain him by ordinary means, and he was carried to the workhouse in a strait jacket, and with his legs bound. The brother who furnished me with this account, stated that, so far as he knew, his head was not particularly hot, nor did he ever complain of headache, but his eyes were wild, and he asked for water; he had no sleep since Monday night, when he slept for about an hour and a half.

He was brought to the Islington Infirmary on Thursday, July 10.

When I saw him, he was in a very excited state, calling out loudly; he was confined by a strait waistcoat. His head was very hot; his skin was hot, dry, and parched; his pulse was rapid, but not very full; his tongue was dry and furred, his pupils torpid; he was very thirsty. His head was ordered to be shaved, and vinegar and water to be applied to the scalp; and eight leeches were ordered to be applied to the temples.

July 11. He was much the same; still uncontrollably violent, and necessarily confined in the strait waistcoat; head still hot; eye-balls rolling and prominent; pupils neither much contracted nor much dilated; tongue furred; bowels confined; skin hot. Although he was very violent, he nevertheless knew what was said to him, and put out his tongue when he was asked to do so; but he appeared to be in dread of something or somebody; and continually asked to be spared from some imaginary tormentor. He always addressed me by name, and begged me to relieve him from some apprehended danger; but he was so incoherent that I could not ascertain what he meant. I should mention that, except in the particular of restraint, he was treated with great

kindness. He was so exceedingly violent, that not only did he perpetually attempt to strangle himself in bed, to jump out of the window, and to kill himself by knocking his head against the wall, but he was also dangerous to others, for, although his arms and legs were confined, he bit one of his nurses very severely, and with his teeth he tore his coat in two. By my express directions, therefore, he was kept under restraint by physical means. He was ordered to take the following: ℞ Hydr. chloridi gr. iij. Fiat pilula 4tis horis sumenda. ℞ Sulph. mag. ʒss, inf. sennæ ʒvj. Ft. mist., cujus sumat coch. ij magna 4tis horis.

I ought to mention, that I was requested at this time to sign an order, for the purpose of conveying this man to a lunatic asylum, but I declined to do so for the following reasons. He was in such a state of bodily disease as to require the most careful medical treatment; and the steps necessary to be taken in the case of pauper lunatics, of conveying them for examination before a magistrate, bringing them back to the Infirmary, and subsequently conducting them for several miles to a lunatic asylum, could not, I conceived, be adopted in the present case, without imminent danger to the life of the man himself, and to the safety of others.

July 12. He was slightly better, but still very incoherent. His bowels had been freely opened, and he had passed a large quantity of very dark, almost black, stools. The head was not so hot; there was no alteration in the appearance of the pupils. He was directed to apply a large blister to the nape of the neck and between the shoulders, and to keep it open by stimulating ointment, consisting of equal parts of emplastrum lyttæ and unguentum resinæ; he was also directed to continue the purgative mixture. He continued in the same state for the next two days; the delirium still continued, which was always of an *apprehensive character*, as if he feared that something was going to befal him, and he talked almost incessantly. I took great pains to ascertain whether the case were one of delirium tremens, but I was convinced that it was not, for the head was burning hot from the commencement, the skin was always hot and dry, the tongue was white and furred and dry, not covered with a creamy mucus, and I could observe, amidst all his violence, nothing that could properly be considered a tremulous motion. I therefore directed the antiphlogistic system to be continued, the blister in the back of the neck to be kept open, and cold applications to be kept constantly to the head.

July 15. He was rather more tranquil, but still raving, apprehensive, and incoherent. Bowels confined. He was directed to take half a drachm of compound jalap powder.

July 16. On this day he suddenly became worse; he was unusually quiet; the tongue became brown, cracked, and dry; the skin hot; he had great thirst; pulse was rapid and small. He was ordered to take the following: ℞ Antimon. potassio-tart. gr. j, sp. ætheris nitrici ʒij, liq. ammoniæ acetatis, et mist. camphoræ, āā ʒiij. Ft. mist., cujus sumat coch. ij magna 4tis horis.

July 17. He was rapidly sinking; the skin cold and covered with a clammy sweat; the tongue black; the teeth covered with sordes; pulse very feeble, almost imperceptible, very rapid. He died very tranquilly on the same day.

Post-Mortem Examination, Nineteen Hours after Death. Weather warm, but not sultry or oppressive. Present: Dr. Semple, Dr. Ballard, Mr. Burford Norman. The body was that of a thin, spare man; there was no particular appearance observed exteriorly in any part. The head did not appear congested; the eyes presented no unusual appearance.

Head. The scalp was natural and not congested. The skull was thin, and in many parts it was translucent. The two sides of the skull were unsymmetrical in a very marked degree, and the skull looked as if it had been subjected to lateral pressure, which had caused its walls to be compressed unequally. As an example of this want of symmetry, it was particularly observed that the part of the skull which, according to phrenologists, is placed over the organ of destructiveness, was prominent on the left side, and depressed on the right, while the right frontal region was prominent, and the left depressed. The dura mater was normal. The arachnoid membrane, covering the dura mater, was natural; that covering the brain was of rather firm consistence, but not remarkably thickened, and not stripped off with facility, but tearing with the effort. The pia mater was congested, and its small vessels were minutely injected in a ramiform manner. The veins and sinuses of the brain were prominent, but not much congested; there was a little air in some of the veins. There were no appearances of adhesion in any part of the arachnoid membrane; and there was no pus, or coagulable lymph, anywhere discernible. On removing the brain, about an ounce and a half of serum, tinged with blood, escaped into the cranial cavity. The whole of the brain, viewed generally, presented an injected appearance, but no part was especially so more than another. The arteries and nerves were healthy. The consistence of the brain, when felt externally, was of average firmness; and, when carefully examined in all directions by dissection, it was found to be of perfectly natural consistence throughout. There were some bloody points dispersed among the white matter, but certainly not more than are seen in brains which are considered healthy. The ventricles contained hardly any fluid, and these and all the other cavities and organs of the brain were found to be perfectly healthy, although most carefully examined by myself and by the able anatomists who assisted me in the dissection.

Chest. The heart and lungs were perfectly healthy.

Abdomen. All the abdominal organs were perfectly healthy.

Remarks. The above case affords matter for numerous, though unsatisfactory, reflexions. A young man in the prime of life is seized, without any known cause, with violent delirium; the mild treatment which he received at first, tends only to increase his disorder; restraint becomes absolutely necessary in order to protect himself and others from the effects of his own violence; he is treated by mild antiphlogistic remedies, but in a few days he rapidly sinks and dies; and after death no morbid appearance of any importance can be detected by the most careful examination. It will not be uninstructive to pass over, *seriatim*, some of the leading features of this very painful case.

Causes. No cause can be assigned for this attack, except hereditary predisposition. It appears that the father had been distinctly insane upon

at least two occasions, and that he had actually been under treatment at one period for a wound in the throat, inflicted on himself while labouring under suicidal mania. It also appears that the father was insane at the time when the subject of the present case was conceived; a circumstance, if it be true, which forms an important and curious fact in the pathogeny of insanity. The only indications of derangement of intellect in Henry Staples were some traces of sulkiness and moroseness in early life; but it appears that he was well educated, did not indulge his appetites or passions, and felt a presentiment of the mental disease which was to overwhelm him.

Symptoms. The symptoms were clearly those of acute suicidal mania, and he sought to gratify his propensity for self-destruction by any means in his power. It also appeared that he laboured under subacute cerebritis, from the great heat of the head, the hot dry skin, the thirst, and rapid pulse.

Diagnosis. From *ordinary mania*, the case was distinguished by the decided symptoms of inflammatory and febrile action. From *acute phrenitis* it was distinguished by the pulse being rapid and rather full, not hard and strong; by the absence of previous vomiting and other preliminary indications; by the absence of the staring blood-shot appearance of the eyes, and of intolerance of light, which denote the sthenic form of cerebral inflammation. From *meningitis* (although the symptoms of this disease are obscure and uncertain) it was pretty well distinguished by the absence of vomiting, of irregular outline of the pupillary aperture, of strabismus, of convulsions, and of coma; many or most of which symptoms usually accompany inflammation of the cerebral membranes, and the effusion consequent upon that disease. From *delirium tremens*, to which it bore some resemblance, it was very clearly discriminated by the previous history of the case; by the character of the delirium, which in delirium tremens is busy, rambling, and talkative, but in the present case was furious, violent, mischievous, and destructive; by the state of the head and skin, which in delirium tremens are cool and remarkably moist, but in the present case were uniformly hot and dry; and by the state of the tongue, which in delirium tremens is covered with a creamy moisture, but in the present case was dry and furred.

Treatment. The treatment was entirely founded upon the above diagnosis; the absence of symptoms denoting the sthenic form of encephalitis contraindicated the adoption of copious bleedings; while the hot and dry skin, and the dry and furred tongue, precluded the use of any form of opium. A middle course was therefore pursued; eight leeches were applied to the temples in order to moderate the inflammatory action which existed; a small quantity of calomel, amounting altogether to a scruple, given in divided doses, was administered; and the bowels were kept open by simple purgatives; and, after the antiphlogistic plan had been adopted to this extent, a blister was applied and kept open in the nape of the neck. Only very light diet was allowed, and the principal drink was water.

Morbid Anatomy. The pathology of this affection is exceedingly obscure; and, although it is allowable to suppose that vascular congestion may have existed during life, but had disappeared at or after death, yet it is quite certain that no traces of inflammatory disease, or

of any other morbid action, could be anywhere discovered. I do not pretend to assert that, in cases like the present, morbid appearances do not exist, but I am sure (and I write from a rather extensive experience) that in many instances it is very difficult to find them; and it is perhaps reserved for another age, and for more accurate and refined methods of investigation, to determine the nature of those subtle changes in the structure of the human brain, which derange the operations of the intellect, and temporarily or permanently deprive man of the godlike faculty of reason.

8, Torrington Square, August 1851.

OBSERVATIONS ON THE PATHOLOGY AND TREATMENT OF PAIN, ESPECIALLY IN FIBROUS AND FIBRO-SEROUS TEXTURES.

By JAMES KILGOUR, M.D.

The three following cases may prove interesting, from the analogy which existed between certain of the symptoms common to each; and more particularly from the circumstance, that pain was a prominent feature in all of them. They are arranged in chronological order.

Case 1. Charles George, a young man, aged 26, tall, and rather muscular in form, whose occupation was that of a farm-labourer, was first seen by me on the 17th January, 1849. At that time he presented the appearance of a person labouring under organic disease; his aspect was sallow, his figure bowed, his walk feeble, and the least exertion produced breathlessness and exhaustion. He stated that he had been ill since the preceding June; that his medical attendant had treated him for fever; and that, for a short time, his urine had been bloody. These were the only antecedent facts, connected with the history of the case, which I could rely upon as authentic.

He then complained of severe palpitation and breathlessness upon exertion, or upon attempting to lie down; taking food also aggravated these feelings, and caused a sense of fulness and distension. His pulse beat, upon the average, 115 in the minute; it was not irregular in any way, but extremely excitable. There was no heat of skin; but the urine was reported to be occasionally turbid; there was some thirst, and the tongue was white and slightly furred; the bowels were rather confined. There was no swelling of the extremities, nor œdema anywhere. A very careful examination of the chest, which was well shaped, revealed nothing unusual, except that the situation of the apex of the heart was rather more to the right than common. Pressure at the epigastrium caused uneasiness, but not pain at this time.

The treatment was generally calmative, and at the same time directed towards the relief of the dyspeptic symptoms. During its continuance, he passed a large round worm, and gradually improved so far as to be capable of some exertion, and of lying down in bed. He was discharged on the 19th of February, with a hope upon my part, and a belief upon his own, that he was upon the highway to recovery. These expectations were not destined, however, to be at once realised.

During the summer, his symptoms returned; and he again applied to me, on the 2nd August, in a worse condition than I had yet seen him. All his former ailments had returned upon him with increased force; and, in addition to them, he now complained of a fixed pain, felt most under the margin of the left ribs, and towards the back, ascending the spine; also of an occasional pain of a stabbing character, which seemed to pass from the situation of the apex of the heart towards the spine, and produced much distress and alarm. There was great tenderness upon pressure at the epigastrium, extending upwards, and towards the left; there was also considerable epigastric pulsation, but no great tenseness of the recti muscles. The pulse, as before, was regular; but the heart's apex beat still more to the right than formerly, and could now be felt most distinctly nearly midway between the nipple and the left edge of the sternum, and upon the lower, instead of the upper, border of the sixth rib. The cause of this displacement was mysterious, not being affirmed by any physical sign, though repeated examinations were carefully made, with a view to its discovery. The patient also complained of being occasionally "caught" (as he expressed it) on the left side of his neck, so as to be unable to move it while the spasm lasted. Digestion was painfully performed, with much tympanitic distension of the stomach and acid eructation, and a pinching pain in the abdomen was sometimes experienced. The urine was at this time examined, and found of sp. gr. 1·009, colour pale, odour fetid, and reaction alkaline.

Leeching and other modes of medication were attempted, but without relief; and, after a short trial of these remedies, dispairing of any advantage from medical advice, the patient gave himself over, on the 20th August, to the care of nature, and, as it turned out, his *vis medicatrix* proved sufficient for the emergency. About two months subsequent to this date, I was much surprised to meet the patient in the street, walking nearly erect, and wonderfully improved in appearance. He informed me that, shortly after he had left my care, he was alarmed by coughing up a quantity of yellow matter tinged with blood. This produced, for the moment, alarming faintness, but was at the same time accompanied by great relief to the pain and palpitation. He also said that, every day since then, he had been in the habit of coughing up a certain portion of the same matter, but that latterly it had diminished in quantity, and had become thinner and nearly colourless. I requested him to call upon me, with a view to the examination of his chest, but he did not comply with my wishes.

Remarks. In the matter coughed up, we have the elucidation of a case which lasted for fourteen months, and baffled the penetration and perseverance of many medical observers. An internal inflammation, whose activity had many varying degrees of intensity at different times, and which ultimately terminated in abscess, had given rise to a majority of the various symptoms which had distressed the patient, and puzzled the physician.

It only now remains to discuss the probable situation of the tumour. In doing so, a reference must be made to the symptoms, both individually and collectively. The symptom which, by itself, is perhaps of the most importance to our present object, is the altered position of the heart; a change, which, in the circumstances, must have occurred

from mechanical causes, and which affords proof positive that a part, at least, of the disease lay within the thorax. Next, we have the pain, the most prominent feature of the malady, and which, from its seat and course, must have resided chiefly in the vagus and phrenic nerves, and also, by implication, in the accessory, as was proved by the spasm of the left sterno-mastoid muscle. Then we have the palpitation and breathlessness; the latter of which symptoms was probably caused by the disordered function of the vagus; while the former was most likely due in part to the mechanical violence done to the heart, as well as to its direct participation in the inflammatory process through the pericardium. Last, among the more important signs, we have the tympanitic distension of the stomach, and the excess of acid generated there; both being conditions which are often induced by pressure, though they may certainly arise from other causes. The abscess must have occupied a position partly, if not wholly, within the thorax; and there is a probability, from the existence of the last-mentioned symptom, that it exercised some degree of pressure upon the stomach. We may therefore conclude, with some confidence, that the septum between the thorax and abdomen was probably the seat of this inflammation and abscess; and we are the rather led to this conjecture, from the knowledge that certain parts of the diaphragm are liable to such accidents, though the pus more generally seeks an outlet at the epigastrium or umbilicus, than upwards into the cavity of the chest. Anatomical reasons also favour this view, which explains at once the affection of the heart, the stomach, and the lungs, all of which were more involved by sympathy than by direct participation in the morbid process. Should we speculate upon the cause of the primary inflammation, it would be proper to recal the incident of the passage of the worm and the bloody urine, and to mention that two or three instances are on record, of worms having made their way outwards through some of the hollow viscera, and of having excited inflammation and suppuration in their progress. Without denying the possibility of such an origin for the case in point, I am rather disinclined to allow the claims of the worm, which should otherwise have appeared in person to support them. As regards the alkalinity of the urine mentioned above, it is perhaps worthy of mention, that Dr. Beneke, of the German Hospital at Dalston, has found the urine to contain an undue proportion of phosphates in many cases of emaciation, and when pus has been formed after acute inflammation.

Case II. Jane Bufton, a widow, aged 58, was seen for the first time on the 16th January, 1850. At this period, she had been ill for four months, and had been treated for fever, upon a strict antiphlogistic plan In person she was stout and well formed, but her countenance was sallow, and expressive of anxiety, and she stooped forward, not from weakness, but with a view to relief from pain. She stated that her complaint had begun with cough and spitting; and that at first she had little pain, which then bore the character of a stitch, and was principally confined to the left side. Subsequently, however, it became altered in situation, and took the nature of a dead aching, and finally of a tearing pain, occurring in paroxysms, which prevented her from lying down in bed. This was pretty much the state of matters

when I saw her. She represented the pain at that time as agonising, and as totally preventing continued sleep; it extended from the apex of the heart backwards to the spine, and upwards to the neck, also along the left arm, and occasionally invaded the lower extremity of the same side. A paroxysm was easily induced by cold air, mental emotion, or any cause of sudden hurry to the circulation. The pulse was full and regular, and beat 72 in the minute; palpitation was not complained of; nor was pain excited by pressure at the epigastrium. There was some cough, accompanied by a tough mucous expectoration. The appetite was indifferent, the bowels regular, and the tongue white. A careful examination of the chest, by percussion and auscultation, discovered nothing but an apparently sound condition of the heart, lungs, and their investing membranes. A great amelioration was temporarily effected in this case by the use of iron, in combination with narcotics and antispasmodics. But this improvement seemed to be only the prelude to an attack of greater severity, which occurred in the beginning of April, during the course of which the pulse rose to 90; there was pain upon pressure at the epigastrium; and there was also difficulty and pain in deglutition. A large number of leeches were applied over the cardiac region with very great relief; and, in the report of the 18th April, upon which day I ceased my attendance, it is stated that she was not free from pain, particularly at night, but could lie down; that she slept pretty well; and that her general condition was much improved. As I have not been applied to since that date, it is probable that this patient has continued pretty well up to this time.

Remarks. In this case, from the nature of the early treatment, we may presume the pain to have been of an inflammatory kind at first, as it certainly was during the last attack. But, during its middle period, this did not seem to be the case, whether we look at the symptoms or at the result of treatment. Upon what, then, did the pain depend at that time? Are we to suppose that the impression made on the nerves of the affected part, during the first inflammation, had so altered their structure, or impaired their function, as to render them incapable of conveying healthy sensations, as is sometimes the case after injuries from external violence, when the parts have apparently returned to their normal condition, but when pain is still felt in their nerves? or are we to fancy that a smouldering inflammation lurked in some of the tissues, and supplied the source of irritation? Either opinion might be maintained by argument, and would certainly afford the ground for an interesting inquiry; which, however, I must decline at present, reserving a few remarks upon pain for the end of this paper.

Case iii. Elizabeth Black, aged 48, was seen on the 17th July, 1850. She stated that she had been ill for four months. In person she was above the middle height, spare, but well formed; her complexion was sallow, and the expression of her countenance was anxious. She complained of a fixed pain of great severity, passing from the apex of the heart backwards to the spine and between the shoulders, the same being aggravated by a long breath, or by taking food into the stomach. Exertion produced breathlessness and palpitation, and there was slight cough. The pulse was 84, full and rather hard, but quite regular.

Upon examining the chest, the ribs in front of the heart were found to project a little, and the left ventricle to be somewhat hypertrophied; in other respects, the heart was normal. The lungs and pleura gave no evidence of being otherwise than natural, except at a point below the heart's apex, and a little to its left, where some resonance of voice was heard, with sibilant and creaking rhonchi at the end of expiration. Percussion, however, failed to elicit any appreciable dulness at this spot. Venesection to twelve ounces was performed with remarkable relief to the pain, which from this time occupied no prominent place among the symptoms, and was only complained of when a deep inspiration was made. A slight cough, with mucous expectoration, remained, but the resonance entirely disappeared, and the râles, which were very circumscribed, became moist instead of dry. The treatment lasted from the 17th to the 26th January, when the patient was discharged.

General Observations. The cases which I have just described, or cases analogous to them in respect of their principal symptoms, might easily have been multiplied, had it been necessary to adduce additional testimony, to prove that the seat of pain complained of in these instances is a very common one. Abernethy used to demonstrate to his dyspeptic patients, in a manner not less unpleasant than convincing, that they could not bear pressure at the epigastrium; for the frequency of pain or tenderness in this situation had not escaped the notice of that acute and experienced observer. The fact that pain does occur here so frequently, is perhaps not to be wondered at, when we reflect that, wherever the terminal distribution of nerves occurs, there we find great sensibility. This has been remarked by M. Valleix, in his treatise upon neuralgic affections; and seems to be an arrangement by which an alarm of danger may be at once communicated to the system, and the more important organs protected from its action. But nature in this, as in all her plans, has aimed rather at the accomplishment of one paramount object, than at complete perfection in all; and we can therefore easily see, that in sensibility we possess a guardian of such vigilant excitability, that, once aroused, it is often difficult, and in some cases impossible, to stifle its warning voice. It is noticeable, that in the first of the three cases recorded, the pain was certainly, and in the other two presumably, of inflammatory origin; and that the tissue principally affected was the same in each—the fibrous. Upon these points some speculative remarks may be hazarded: first, as to the modes in which nerves are primarily affected with pain; and secondly, as to the coincidence of some painful affections occurring in connexion with fibrous tissue.

Modes in which the Nerves are primarily affected with Pain. From this inquiry must be excluded the cases of pain arising from external injury, or from reflex action; because it would be premature, with our present knowledge of the action of the nerves, to attempt any explanation of their altered function during the occurrence of pain. We must therefore limit the field of our conjecture; and, with a view to practical ends, inquire how healthy nerves may take on abnormal action. For one class of cases it may suffice to say, in the mean time, that the nerves supplying tissues, in which an unhealthy process is

going on, become involved in that action; and we are prepared to expect that, in such circumstances, some change of function may occur. But, in some instances, nerves become painfully affected by certain influences not inducing appreciable structural change; and the question is, whether in these cases such influences act for the first time otherwise than in the way of inducing inflammation. By way of example, moisture and cold produce tic; but is not the first attack of that complaint always of an inflammatory nature, when the nerve was healthy prior to its exposure to the exciting cause? Again, a *materies morbi* in the blood may stand in the place of cold and moisture; and what is the result? An attack of acute rheumatism in the first instance; and, most likely, a succession of chronic attacks for the future. If this reasoning be correct, it follows that healthy structures are incapable of morbid action, which is not the general belief as to nerves. A practical deduction would also follow, that the treatment in such cases should be, to use an old-fashioned term, antiphlogistic. Pain would thus come to be considered the expression of an altered structure, rather than of an altered function; and, if we argue from the analogy of known causes of pain, such as pressure, we may presume that some obstruction to the progress of the legitimate influence of the affected nerves exists, which obstacle we can hardly imagine unconnected with a physical change. From the same premises it would follow that, in reflex pain, the nerve affected must be itself healthy; otherwise, how could it convey correctly even a wrong impression? The singularity in these cases is the point at which the morbid sensation becomes developed, and which, though not yet reduced under a fixed law, is perhaps to be explained by the general remark of M. Valleix, above alluded to, respecting the sensibility of nerves towards their extremities.

We have now to apply these observations to the cases described, and to others analogous to them, where pain at the præcordial region is a prominent symptom. We have seen that it is not excited in healthy nerves, except by mechanical means, or by some change occurring in the surrounding tissues, or by special influences producing inflammatory action; and therefore, in the absence of the first and the last of these cases, we have only to inquire, what is the tissue affected? to which the nature of the pain often affords an answer. We are then to presume, that some change is going on in one or more of the organs which adjoin the seat of the pain. We are not to believe that a functional derangement of their nerves exists, at least if the case be at all recent; but, proceeding upon the first supposition, we must endeavour to discover the kind of change which is being effected, more particularly if it be of an inflammatory nature. If this point be made out, it is of little practical import, in the outset of the treatment, whether the mischief is caused by the liver or by the stomach, or whether it is due to neither. The former organ has much to answer for in the way of exciting diaphragmatic and even pericardial inflammation; though it would seem, from some late researches of Dr. John Taylor, that a faulty condition of the kidney is even more productive of pericarditis than rheumatism itself. When, then, the great depurating organs are at fault, certain tissues become affected; this brings us to the second subject of speculation.

Connexion of certain tissues with some painful disorders. The fibrous, fibro-serous, or fibro-cellular tissues seem peculiarly obnoxious to the evil influences of bad blood and bad climate. And, as if evil communications corrupt good manners in this as in other cases, these membranes involve the neighbouring nerves in the same disturbance, the consequence of which is, that their affections are very painful, often tedious, and generally liable to recur. For it seems to be a law of nervous matter, that, if once impressed with any peculiar action, it manifests a tendency to maintain the same. This, perhaps, is only a consequence of that property in such matter to resist change, by which our characters, aptitudes, and repugnances, remain the same from the moment of their full development until their extinction.

Accepting as a fact that fibrous, fibro-serous, and fibro-cellular tissues are extremely susceptible of anormal nutrition in some shape, we may recal to mind certain neuralgic phenomena, which perhaps may be independent of any source beyond the nerve affected, but which nevertheless deserve notice, on account of their propinquity to these structures. Of this kind are sciatica, lumbago, tic, pleurodynia, certain forms of headache, of rheumatism, of gout, and also some painful affections of the abdomen occurring in the course of Bright's disease, and sometimes terminating in ascites. These complaints, for the most part, own a humoral or an atmospheric origin, or one depending upon the joint influence of both; and, as their causes are known to affect fibrous tissues in preference to any other, it is only natural to presume some connexion between them and the nerves to which the mischief is referred. I often used to reflect upon the singularity of the fact, that, in facial neuralgia, the nerve did not become affected until its emergence from its bony tunnel; but this view of the case clears up that difficulty, and is wonderfully confirmed by the kind of treatment which is found most useful in such disorders, consisting of those remedies which tend to improve the condition of the blood, with other means directed to the same end.

Of the reason why these tissues should be affected under such influences, I can offer no explanation, unless we accept as such what has been often advanced before—that a lesser vital organization possesses a smaller power of resistance. Some peculiarity connected with the circulation of these parts may, as in the case of articular cartilages, perhaps enable us to make an advance towards discovery; but, in the meantime, we must rest satisfied with the fact, or with the sequence of facts, as we know them. A knowledge of them affords us a valuable means of diagnosis and aid to treatment, besides forming the starting ground for the philosophy of the question. Of course there is a great difference in the sensibility to pain in various individuals. Hunter says that animals with fair skin and hair are more susceptible of cold, as also of pain, than the dark. This is well known in the army, where we find that the power of bearing violence committed on the body is in proportion to the darkness of the individual. The late Sir Robert Peel was a striking instance of this peculiarity; and the truth of Hunter's remark is further borne out by the fact, that many fair and scrofulous individuals have great quickness of feeling and mental susceptibility. The structure of the nervous system must thus have a strong influence in determining the character of the individual,

which at one time was judged of from the form of the head alone, as indeed it very generally is at this day. The variety of the kinds of pain which may be excited in the same nerves is also curious, yet not more so than the numerous and contrary sensations which we experience through the same medium in a state of health, and by which we are enabled to characterise the properties of bodies, and to experience a gratification of many descriptions and degrees.

In this apparent complexity of function enjoyed by the cerebro-spinal nerves, does the sympathetic or its branches take any part? Dr. Seller, of the Royal Infirmary of Edinburgh, attributes to the branches of this nerve the pain experienced in headache; and Professor Hughes Bennett states that through them the pain of colic, gall stones, etc., is experienced; and it is certain that mental emotion influences powerfully their organic action. But, after all, the question at present has no great pathological interest; for should we, by an unheard-of accuracy in diagnosis, attain to a knowledge of the particular fibres involved in a case of neuralgia, we have no treatment wherewith to follow up such a transcendental discovery. It is time, also, that this vagrant discussion should terminate, though the subject and its collateral topics are well nigh inexhaustible. Yet one more remark is necessary as bearing upon the general conclusion; which is, that in very many cases, when the nervous matter is alone involved, no pain is felt, the only visible result being a cessation or modification of its action; and yet intense pain may be excited in a nerve by its being put upon the stretch, as by a spiculum of bone, or by a tumour. In these cases, to be sure, the pain is usually very intermittent; yet all pain is more or less so, for it is not conceivable that a nerve should have the power of maintaining a continuous action for an unlimited period.

The following are the inferences at which I arrive.

I. Setting aside mechanical agency of all kinds and reflex action, pain is incurred in healthy nerves by their participating or becoming involved in abnormal processes occurring in the tissues to which they are distributed, by which, if the process be long continued or intense, some change takes place, rendering them liable to be affected with pain upon the recurrence of a small amount of the original exciting cause, and without the concurrents which accompanied their first seizure.

II. It is doubtful whether the nerve alone suffers in such secondary or succeeding attacks, or whether the surrounding tissues are likewise affected.

III. Such incidents are most frequent when the structures concerned partake of the nature of fibrous tissue.

IV. Loss of tone, or diminished power of resistance, in the parts invaded, is frequently permanent.

V. This atony is most frequently local in its origin and extent.

VI. In such instances, it may arise from change of structure, inappreciable to our means of observation.

VII. If these premises are correct, it follows that, when pain occurs in the situations referred to, and lasts for any time, the treatment should be directed to favour the subsidence of the morbid action, as well as to neutralise the exciting cause; and that, for the first indication, the abstraction of blood is probably the most effective means.

VIII. When the tissues have lost their powers of reaction, and yield at once to a depressing influence, a tonic and alterative or depurating plan of treatment is to be followed.

IX. The vigour of the treatment is generally to be proportionate to the importance of the parts or organs concerned, and to the strength of the constitution.

Here it is assumed that pain is a certain index of abnormal nutrition on the one hand, and of altered function or structure upon the other; and, as the second condition is caused by the first, we must infer that if the first be warded off or mitigated, its consequences will not follow, or only in a minor degree; and if pain be the certain index of inflammatory action in such cases, and it be proved by experience that blood-letting, local or general, has the power of assuaging that pain, we can only suppose, at least in cases where tumefaction has not occurred, that it so acts by allaying the abnormal action.

The conclusions drawn from this short train of reasoning are opposed by a remarkable statement of Dr. Dietl of Vienna, as to the efficacy of blood-letting in pneumonia, which was noticed in the *Edinburgh Monthly Journal* for January 1851, and which is to the effect that, while 85 cases treated by bleeding alone gave a mortality of 20·4 per cent., 106 by powerful doses of tartar emetic alone 20·7 per cent., 189, treated by dietetic means only, gave the diminished per-centage of 7·4. Whether this statement be free from error or from fallacy, I am not enabled to declare; but the results are curious, and appear to be in contradiction to nature itself, which seeks relief in this disease by the effusion of blood, sometimes occurring very copiously, and seldom without apparent advantage. In other complaints, the same mode of relief occurs naturally; and if the healing art is to be founded upon an observance of the laws and operations of nature, we have certainly the sanction of the highest authority for continuing the practice of blood-letting, Dr Dietl's tables to the contrary notwithstanding. If the preceding remarks be correct, it must be of the utmost consequence to preserve the nerves of the inflamed part from permanent injury; and this consideration alone, were the relief to present suffering of no account, should preserve every honest pathologist from the venal paths of a do-nothing quackery.

Halifax, July 15th, 1851.

BIBLIOGRAPHICAL RECORD.

1. Letters on the Laws of Man's Nature and Development. By Henry George Atkinson, F.G.S., and Harriet Martineau. 8vo., pp. 390. London: 1851.
2. Miss Martineau and her Master. By J. Stevenson Bushnan, M.D., Physician to the Metropolitan Free Hospital. 8vo., pp. 173. London: 1851.
3. Letters to a Candid Inquirer on Animal Magnetism. By William Gregory, M.D., F.R.S.E. 8vo., pp. 528. London: 1851.
4. The Mesmeric Mania of 1851. By John Hughes Bennett, M.D., F.R.S.E., Professor of the Theory of Physic and of Clinical Medicine in the University of Edinburgh. pp. 21. Edinburgh: 1851.
5. What is Mesmerism? an Attempt to explain its Phenomena on the admitted principles of Physiological and Psychical Science. By Alexander Wood, M.D., Fellow and Member of Council of the Royal College of Physicians of Edinburgh. pp. 31. Edinburgh: 1851.

Mr. Atkinson, at the commencement of his work, cites, among other mottoes, the observation of Sir Humphrey Davy, "that the physical inquirer is seldom disposed to assert confidently on any abstruse subjects belonging to the order of natural things, and still less so on those relating to the more mysterious relations of moral events, and intellectual natures". We wish Mr. Atkinson had laid this pithy sentence rather more to heart; for more confident assertions on abstruse subjects it was never our fortune to read. We look in vain in his lucubrations for the caution and reserve so wisely inculcated by his great authority; and we lay down his book with the conviction, that he has no real knowledge of the state of mind which he praises in Sir Humphrey Davy. It is evident that the mind must have a certain grandeur and amplitude before it can perceive its own littleness, and that the mental sight must go forth out of darkness, before it can be dazzled with the light of day. Confidence in its own decisions, and in its own strength, belongs to the youth of nations and to the infancy of mind; but modesty and hesitation surround those, whose more matured intelligence has recognised the narrow boundaries of human thought.

Mr. Atkinson has no such hesitation and reserve; he passes before him the tremendous problems of existence and futurity, and, without fear, assigns to them their solutions. A mere point of earth, the veriest drop in the ocean, he cries aloud that his sight can embrace the universe, and penetrate the wonders of the watery expanse. Unable to see the vivid light before which the prophet veiled his face, he creates his idol, though the truth is on every side of him, as the Israelites made their golden calf, even while the glory of the Godhead overshadowed the Mount.

We owe this joint publication of Mr. Atkinson and Miss Martineau to the circumstance that two minds, similarly and singularly constituted, have come into contact. The mind of the lady, indeed, seems to have been subjugated by the stronger volition of her masculine coadjutor; but it would have been impossible that this should have been so thoroughly effected, had not the path been made easy by the original conformity between them in point of reasoning power, and in the marked deficiencies of their mental constitutions. Dr. Bushnan has pointed out with great force the nature of this defect. Mr. Atkinson seems to have no perception of that great class of intuitive truths, which the Scotch metaphysicians, in opposition to Locke and Hume, have in the latest time so well examined, which form the basis of the philosophy of Kant, which are discussed with wonderful precision in the pages of Cousin, but which are to be found also in what remains to us of the

wisdom of Socrates, and of the vast speculations of Plato. There is little doubt, but that this highest power of the mind, by which alone we are definitely separated from brutes, is more developed in some minds than others, and, taking the aggregate, in some nations than others. The Germans and the Scotch possess it more than either the English or the French, and it is probable, that the Greeks were more largely endowed with it than the Romans, and the Jews than any nation of the earth. Among these "necessary truths" is included the idea of "cause", as distinct altogether from the phenomena with which it may be involved. Phenomena, it is true, may first give us the idea of cause, and are, as Cousin expresses it, its chronological antecedents; but, once seized by the mind, the idea of cause becomes detached altogether from its antecedents, and is perceived to be an independent and necessary truth. Two phenomena succeeding each other may give the idea of cause; but, once given, the mind abstracts it from the narrow origin from which, as far as our minds are concerned, it sprang, and it becomes illimitable and boundless. Of such an abstraction as this, Mr. Atkinson seems perfectly unconscious; he never separates causation from the idea of causal connexion between phenomena, and it is indeed probable that he cannot rise higher than the limited, and therefore erroneous, dogma of Brown, that causation is nothing more than invariable antecedence. Besides this inherent mental defect, Mr. Atkinson unfortunately presents another, which obviously arises from defective training, viz., a deficiency of logical power. This is evident in almost every page, and is so marked, that Dr. Bushnan has often controverted his positions, by logical induction from his own premises. With this untrained reasoning faculty, Mr. Atkinson has attempted to work out problems for himself, and it is clear that his knowledge of what the reasoning powers of other men have taught us of these problems is very limited. Hence, on an original want of learning and of information, he has brought to bear a defective instrument, and the result has been a strange mixture of the commonplace and the erroneous.

We wish we could stop here, and charge Mr. Atkinson only with intellectual defects. But, we are afraid, sins yet more heinous must be imputed to him. We will give him full credit for being sincere and honest in his belief of the marvels of clairvoyance and prevision, but we deny that he has truthfully treated the subjects he proposed to himself, or rather, which Miss Martineau proposed to him. Everything which might tell against him has been avoided, to an extent which warrants us in calling it a *suppressio veri*. His treatment of Lord Bacon is an example of this. He has culled carefully from the writings of Bacon the expressions which support his views, while other passages are as carefully excluded. In this manner he ingeniously represents himself as a sort of commentator on Bacon, and represents as an unbeliever and an atheist, professing a sham religion, in deference to the ignorance and prejudices of his contemporaries, the man who has written, that he would "rather believe all the fables of the Talmud, than that this universal frame is without a mind"—the man who prayed that "from the unlocking of the gates of sense, and the kindling of greater natural light, nothing of incredulity or intellectual night might arise in our minds towards divine mysteries".

We may then assert that, from original defect of mind, from want of education, and, perhaps, even from want of moral integrity, Mr. Atkinson is the last person whose opinions on *Man's Nature and Development* we should be disposed to adopt.

Let us, however, pass to the book itself. We object to it strongly on several grounds. We might take exception to it as a mesmeric performance, and examine into the wonders so unhesitatingly asserted. Or we might condemn its tone, and the manner in which it speaks of things sacred and dear to most men, and which on this ground, if on no other, are entitled to tender and respectful treatment. But of far more consequence is it to us, to exa-

mine the conclusions arrived at in it, concerning matters of faith and usual credence. Dr. Bushnan has adopted the same view, and, in his most able analysis of Mr. Atkinson's doctrines, has passed over with little notice the mesmeric absurdities, and the offensive manner, to fix his attention on the scientific, or rather, the pseudo-scientific dogmas, proclaimed in the work. It is, however, no easy matter to collect Mr. Atkinson's opinions; they are enunciated often enough it is true, but so obscurely, and with so little method, that it requires care to understand them thoroughly. But the following summary of them is, we believe, quite correct. Mr. Atkinson believes—

"That the matter which exists in space has had no beginning, and is to have no end; that it exists from eternity to eternity; that the arrangements of the universe, in all their gigantic extent, are the result of the laws of nature; that there is no design, and no chance in the order of things; that plants and animals at particular epochs arise spontaneously, and continue for a time to exhibit the phenomena peculiar to the organised departments of nature, in obedience to certain fixed laws of matter; that mind is the action of the brain; that there is no God, no hereafter for man, no liberty of action, no sin, no responsibility; that phrenology and mesmerism afford the means by which one man may study the phenomena of another's mind as a part of nature; that distance does not prevent one man from seeing what passes in another's mind; that there is ground of hope for the improvement of the moral world in the fear inspired by mesmerism; that the inmost thoughts of any individual may be at any time subjected to the scrutiny of another; lastly, that the foretelling future events is a power which exists in nature." (*Bushnan*, p. 15.)

Mr. Atkinson's opinions being thus reduced to an intelligible form, it is at once evident, that the dogma about the eternity of matter is simply the old atheistical and material assumption, which we really hoped had disappeared for ever. It is a complete assumption, to assert that matter can never have been created, and can never be annihilated. That matter is eternal, is not a necessary and intuitive truth, and not being so, no logic can ever prove it. On the other hand, it is an intuitive truth, that, in the idea of causality, the mind sees force and power, which is independent of matter, and, though first suggested by it, is not necessarily connected with it; and it can be easily observed by any one, that this idea of force and power is an ultimate one, mysterious and obscure, as no doubt it must be to a being of finite intelligence, but still one in which the mind rests complacently, and seeks no farther; whereas, when any one speaks of matter, the mind, in virtue of its own inherent necessity, seeks beyond the matter for the force which called it into being, and which maintains it in action. It is the same necessity which led the philosopher of old to question the materialist dogma of his time with the demand,—"and Chaos, whence?" When any one speaks of the eternity of matter, the reason of each person penetrates deeper still, and asks—"but matter, whence?" It is sufficient answer to Mr. Atkinson's fundamental position that matter is eternal, to reply that such an assumption is unsatisfactory to every educated mind. Dr. Bushnan sums up his argument on this head in these eloquent terms.

"If matter be eternal, there can be no God; there is, there cannot be any existence, whether intelligent or non-intelligent, not subject to the properties and laws of matter. If matter be eternal, everything which happens, and everything which is produced, must be the result of necessity,—that is, the consequence of the operation of the original laws and properties of matter. And therefore, if matter be eternal, everything must arise out of what is strictly called chance—that is, by the sole operation of such properties and laws of matter as the circumstances of each particular case bring into play. It seems possible, that there may be individual minds so anomalously constituted, as to feel no difficulty in such views. But it is certain that such is not the natural sound constitution of the mind of man. For, if

matter be eternal, there cannot be any power in the universe; everything which exists, and everything which occurs, must originate in the various affections of the atoms and masses which compose the material universe. Again, if matter be eternal, there cannot be any such thing as a true cause in Nature, as everything termed a cause under this assumption, can be nothing more than the expression for the law under which any event has occurred. *And therefore, under the assumption that matter is eternal, the absurd conclusion follows, that the notion of power, and the notion of cause, in the sense in which these notions are intuitively apprehended by the mind of man, are deceptions imposed upon him by the constitution of his nature.*" (*Bushnan*, p. 164.)

We have already expressed our belief that Mr. Atkinson belongs to that class of persons, happily very small, who are deficient in the power of recognising intuitive truths. This is proved by the contentment with which he rests in the assumption of the eternity of matter; but it is still more evident in the manner in which he uses the terms *cause*, *law*, *chance*, and *design*. Mr. Atkinson's second position is, as we have seen, that the arrangements of the universe are the result of the laws of nature, that is, of the action of the properties of matter which it originally and necessarily possessed. By virtue of these properties, it is supposed that matter changes, that elements unite, that organisation declares itself, that life appears, and, finally, that reason comes to light, and is able to discover how, and in obedience to what blind forces, it has been born. Now the term "*law*", as applied to reactions of matter upon itself, is evidently simply a convenient mode of saying, that phenomena assume a particular relation to each other, which relation is determined from observation. For example, we say it is a law that bodies subjected to heat shall undergo a proportionate expansion; which is evidently merely another mode of saying that, in our experience, bodies expand when heat is applied. But as every one of these so-called "laws" expresses nothing more than the sequence of phenomena, there is nothing about it which is necessary and inevitable. The law merely implies, that, as such phenomena have assumed so often such a relation, they will probably assume it again. And the probability that they will so assume it increases with every fresh observation, which shows that they have again so assumed it. But the highest degree of evidence in favour of the constancy of such a law, is one merely of probability; and the human mind can evidently never attain to the certainty that a certain succession of phenomena is constant, since infinity alone can know that there is no possible exception. In fact, even now, many of our so-called laws are coupled with their exceptions, as in the example above given, where it is customary to say, that the expansion of water below a certain temperature, or the contraction of clay above it, are exceptions to the law that bodies expand by heat. Consequently, if Mr. Atkinson asserts that it is a law that matter shall be always active, and must always give rise to certain effects, it can at once be affirmed that this is a mere hypothesis, and that we have no right to affirm that matter cannot be perfectly quiescent. We differ here from Dr. Bushnan in believing, that in the so-called "law of gravitation", we do no more than affirm the existence of a force which attracts bodies inversely as the squares of their distances; and although the highest generalisation has been given to this law, it is evident, that, in all other similar cases, its universality and constancy must be to us a matter of probability, never of absolute certainty.

It follows, then, that when Mr. Atkinson speaks of a necessary law, that is, of an inevitable necessity that matter shall act in a certain way, he is affirming what the reason of every one rejects; since an inability to pronounce on the universality of anything is a necessary result of the very condition of finite beings. Probability, as Butler remarks, "is the very guide of life", and our so-called "laws" are merely the expression of its greatest amount. Thus, by using the term "law", we do not in the least advance

ourselves, when we seek to solve the mysteries of creation ; but, on the contrary, we impose on ourselves a word which literally means nothing, or, according to the sense in which it is taken, implies an error.

There is no doubt that, owing to a want of precision in thought and language, many persons, in speaking of "law", are in reality referring to "cause". In using the expression that a certain series of events is governed by its own law, many persons simply express their belief that such series cannot originate of itself, but must be traced back to some cause, and that the successive changes which have preceded the effect they have before them, can be indicated with more or less probability. The idea of cause is, as we have already said, intuitively suggested in all actions of matter ; and the sequence of one phenomenon to another develops in the mind both the notion of causal connexion between them, and of absolute causation in general. And, even if it should be afterwards discovered that the phenomena in question were really not connected, still the abstract idea of causation remains. But, as it is evident that the invariable sequence of phenomena, and therefore their causal relation, cannot be absolutely proved, it follows that there never can be anything more than a greater or less probability that there is such a causal relation between them, and, consequently, in the last analysis, the only permanent idea of cause is the abstract one which can be detached altogether from phenomena.

In speaking of the "eternal and immutable laws of the universe", Mr. Atkinson has therefore either been making use of meaningless terms, or he has confounded the idea of cause with law. It is, indeed, evident that he has really been impelled beyond the point at which he had endeavoured to stop, and has admitted, behind his so-called "immutable laws", some force or power calling them into action. Thus he writes—"We know nothing fundamental of nature, nor can we conceive anything of the nature of the primary cause" (p. 7). This is quite true ; but it is no less true that we must admit that there is a primary cause, and Mr. Atkinson has done so in this very passage. Yet, as Dr. Bushnan has very clearly pointed out, if we adhere strictly to Mr. Atkinson's system, "there is no room for the term cause in any other sense than is synonymous with law".

The same obscurity and uncertainty are found in Mr. Atkinson's notions of chance and design. Mr. Atkinson says there is no chance, and therefore no design, in nature. But, as Dr. Bushnan remarks, "the equivalent of the proposition, that there is no such thing as chance, is simply, that anything which happens has a cause ; while the meaning of design is, the direction of known causes in such a manner that they shall produce a previously-conceived effect. What kind of logic is this ? Every event must have a cause, therefore causes cannot be so directed as to produce a previously conceived effect ! The proposition that nothing happens by chance, does not in the least interfere with the possibility of the conception of design". (*Bushnan*, p. 70.) In fact, there is no such thing as chance, and all that men mean by the word is, as Dr. Bushnan remarks, that a chance event is one which had not a preconceived purpose. When a man uses the common expression, that it chanced so and so, he means that, independently of his volition and purpose, or of that of other people, an event occurred which was not foreseen, because the causes producing it were not recognised by him. Dr. Bushnan's illustration is a very good one : "when a person shakes the dice-box and throws sixes, no one doubts that, if he could repeat exactly the same series of acts over and over, he would throw sixes as many times, and the event is said to occur by chance ; not because it is believed that it is not produced by a definite series of efficient causes, but because any attempt to control or direct these is abandoned as impracticable" (p. 74). When Mr. Atkinson speaks of "chance excluding laws", it is simply, and by his own showing, nonsense, as laws cannot be affected by what does not exist. And further, as chance means, if it means anything, that events occur without a preconceived purpose to

be gained by them, therefore, as Mr. Atkinson states that events never occur by chance, that is, without a preconceived purpose, he actually affirms that every event has a preconceived purpose, or, in other words, occurs from design. Instead of saying, therefore, there is no chance, and therefore no design, the proper reading of Mr. Atkinson's opinion should be, there is no chance, and therefore there must be design. But if, abandoning this ground, Mr. Atkinson's meaning be taken to be that there is no design, because causes act by necessity, and results cannot be other than they are, although they cannot be foreseen, we must again repeat our assertion, that this is an unjustifiable assumption of what cannot be proved, but which is opposed by all reasoning which men can bring to bear on it. For this doctrine of necessity can only be founded on the other dogma of the self-existence of the material world, and we have already exposed the very insufficient grounds any one can have for an assumption so monstrous.

Acting upon his hypothetical positions of the eternity of matter and the necessary action of its so-called laws, Mr. Atkinson proceeds to arrange his other articles of belief in accordance with them. As everything occurs from "necessity" (that is, some blind inherent force, which is infinitely more incomprehensible to us than the intuitive conception of an infinite and omnipotent and all-intelligent cause), there can of course be nothing like freedom of action. A concurrence of atoms makes man what he is, good or evil (as we ignorantly term it), wise or ignorant, an angel or a demon. Responsibility ceases, and, with it, rewards and punishments. What we do we do, not of ourselves, but because it was originally in the nature of things that we should perform that action and no other. This shallow doctrine, propounded over and over again by those who perplex themselves with things above them, and who yet neglect the evidence which lies close at hand, needs no refutation. Within ourselves we bear the witness to the freedom of our own will; and within ourselves, also, we too often hear the judge which tells us that we have chosen the broad path, when we should have taken the narrow one. "Man's free will", says Dr. Bushnan, "cannot be established by reasoning; it is a fact in his mental constitution. . . . . All that Mr. Atkinson can set against the universal belief of men, as to the fact of their liberty of action, is the double assumption that mind is matter, and matter eternal." (pp. 77-81.)

A curious instance of the extraordinary absence of logical power in Mr. Atkinson's mind presents itself in connexion with this subject. He has, as we have seen, denied the existence of a superintending moral ruler, of freedom of action, and, consequently, of responsibility, and right and wrong. No one could then be possibly prepared for the following discovery.

"The knowledge which mesmerism gives of the influence of body on body, and, consequently, of mind on mind, will bring about a morality we have not yet dreamed of. And who shall disguise his nature and his acts from the *clairvoyant* eye of some one who is observing our actions and most secret thoughts, so that our whole character and history may be read off at any moment? Few have the faintest idea of the influence these great truths will have upon the morals of men." (*Atkinson*, p. 280.)

How, we would ask Mr. Atkinson, can actions arising from necessity be altered by the influence of the clairvoyant eye? It is evident that liberty of action is here assumed; that a man is supposed to do one thing rather than another, because he knows that his conduct is watched. And, more than this, the existence of a moral code is fully admitted; else how would the person watched know that he ought to act in one way rather than another? Pushed to their legitimate conclusion, Mr. Atkinson's *clairvoyant* superintendence and control necessarily implies free will and conscience, and, consequently, the idea of rewards and punishments, and of a future life. Let Mr. Atkinson take his own premises, as implied in the above passage, and argue them on the model of Butler's *Analogy of Religion*, and he cannot

logically halt anywhere on the road, but must abandon materialism, necessity, and atheism.

We do not think it worth while to proceed further in this direction. Why should we, indeed, be called upon to go over this beaten ground of materialism and necessity, as if it had never been advanced, and never refuted? We do not find that Mr. Atkinson has discovered any new facts; but rather that he has put together, feebly and incoherently, what, in the hands of others, have been more cogent and forcible arguments.

We have chosen the above line of argument, first, because it deals most directly and completely with what is most dangerous in Mr. Atkinson's teaching; and, secondly, because it is the one Dr. Bushnan has followed. But it is a peculiarity in Mr. Atkinson's creed, that it can be refuted in various ways. We have adopted one way, but we might with equal ease have adopted another. We might have shewn, not the metaphysical absurdities of Mr. Atkinson's dogmas, but the utter want of harmony between them and truths for which we can advance evidence. We might insist on the phenomena of mind, and show how inconsistent these are with materialist doctrines. Or, from the recesses of our moral nature, we might have called forth facts, which cannot in any way be harmonized with non-volition and necessity. Or, passing externally, we might have arrayed against this materialist and atheist the truths clothed in the divine light of Revelation. In any case, Mr. Atkinson could have been as easily silenced as he has been by Dr. Bushnan, in the line of argument chosen by him. But it is unnecessary; nor should we have wasted even the space we have upon him, were it not that his book has been endorsed by one, whose name, unhappily, may prevent it from being utterly still-born.

We do not think it worth while to follow Mr. Atkinson into the mesmeric portion of his book; but we cannot resist giving the following excellent exposure, by Dr. Bushnan, of the inconceivable inconsistencies and absurdities which pervade this portion of it. Mr. Atkinson holds, as we need scarcely say, that there is no such thing as mind; that what we call mind, is a manifestation of the properties of matter. As we write these lines, we do so, according to Mr. Atkinson, because a certain chemical change in the brain gives us certain ideas, and a certain volition (if we can use the term) to express them; and this chemical change is produced inevitably and necessarily from the action of the laws of matter. But Mr. Atkinson believes that there are persons, in the mesmeric state or not, who can foretell future events. Therefore, as future events will be the results of certain future material changes, without which they could not occur; and as the act of thought in the brain of the person prophesying arises from *present* physical changes in his brain, if any one can foretell *future* events, it can only be by the same changes occurring in his brain which are hereafter to occur in the matter, by the changes of which are to be produced the results foretold. That is to say, A, foretelling an action of B's (which action is to be produced by a change in B's brain), must undergo at the time the same series of changes which B is to undergo at some future time, and these changes must occur in the same matter. But, as the matter producing the action of B, exists only in B, it is impossible that A, not being possessed of B's matter, can foresee the changes which are to occur in B, by the action of the matter proper to B. In other words, if A can foretell a future mental act of B, A must possess B's brain, and set it to work before it works for B himself. The whole thing is reduced to an absurdity; and nothing can more strikingly show Mr. Atkinson's deficiency of reasoning power, than the fact that he did not foresee the inevitable collision between his materialism and his mesmerism. But let us hear Dr. Bushnan on this point, for he exposes the nonsense of the thing most clearly.

"Mr. Atkinson says, that men can predict future events independently of mesmerism; that some men, in their ordinary state of life, can predict future events. What does this amount to? How does this admission accord with

his dogma that there is nothing in the universe, that there is nothing in the inorganic or organic world, but matter worked into its several forms, in accordance with the laws of physics and chemistry? According to his dogma, life is nothing but organism, and organism is nothing but the dust of the earth, which, under the operation of physical conditions—that is, under the operation of physical conditions of so rare concurrence, that in the present system of things, that concurrence seems to have taken place but once for each species of animals—has assorted itself in the nice proportions required for the peculiar structures of the existing animal kingdom. Mr. Atkinson does not perceive any difficulty in the supposition, that the thinking organism of man's brain should be produced by the mere affinities of the elementary substances which enter into its composition, and that the operation of external impressions made upon it, through the nerves, should determine it to various processes of thought, desire, emotion, and action on things without, through the muscular system. All these, according to him, are so many chemical changes, wrought on the elementary particles composing the brain by physical influences extending to it from without; and we so far agree with him, as to believe that a chemical change does occur in some part of the brain, as often as any such exertion of its function takes place. But when he says that the chemical change, which has just occurred in one man's brain, can be sympathised with in another man's brain, at a distance, even in an opposite quarter of the globe; or that such a chemical change in the brain of one individual, shall prefigure, in an intelligible form, the result of nice chemical changes which are to take place, during months or years, in the brains of thousands of individuals, bound neither to it nor to each other, by any tie acknowledged in the laws of chemistry; then we affirm that his conclusion holds nothing in common with his premises. Mr. Atkinson cites the fulfilment of various predictions, for the purpose of showing, according to our interpretation of his views, that the chemical action of the brain, in one individual, can intelligibly represent the results of the nicest and most complex kinds of chemical action in the brains of thousands of persons, during a succession of years. To prove that we are not trifling with the reader, we must be allowed to quote a passage, already cited: 'What are the instincts of animals, and the mind of man, but a result of chemical action or material process?' (p. 257.) But to return to the chemical process in one brain, which embodies intelligibly the sum of the like actions in thousands of brains, during a succession of years, Mr. Atkinson cites several predictions, afterwards accomplished, from the life of Joan of Arc: among others, the following. On the 1st of March, 1430, Joan made the following predictions: 'Before seven years are past, the English will abandon a larger prize than they have done before Orleans, and will lose everything in France. They will experience the severest loss they have ever felt in France; and this will be by a great victory, which God will bestow on the French.' Mr. Atkinson then enters into particulars, to show that this prediction was literally fulfilled; the great victory referred to being at the distance of twenty, if not of twenty-two years from the date of the prediction. Let the reader only cast one passing glance on the monstrous absurdity, which the author's mode of viewing this subject brings upon him—a few chemical changes in the brain of one individual representing, in an intelligible form, the results of thousands of forms of chemical changes thereafter to take place in the brains of millions of Frenchmen and Englishmen, during twenty years. Does Mr. Atkinson say what he refers to is simply a matter of fact? It is not our business at present to dispute his fact; we grant him the full benefit of it. But we are entitled to ask him to reconcile his so-called fact with the dogma as to the chemical character of mind, which runs through his book." (pp. 148-51.)

Dr. Bushnan then proceeds to show that, however he twist his argument,

Mr. Atkinson cannot avoid being impaled on one or other horn of a dilemma, and thus concludes:

"It is plainly altogether impossible to reconcile the idea of thought being the result of chemical action, with any kind of prediction, beyond what directly flows from a principle which includes the prediction. And this rule extends to all the forms of clairvoyance, or Mr. Atkinson must make his election, and either give up clairvoyance, or confess that there is something more in the operations of the human mind, than what is analogous to chemical or any other kind of material action." (p. 152.)

We shall not waste further space on Mr. Atkinson; and, in parting with him and his misguided associate, we shall only express the hope, that the universal condemnation and refutation their doctrines have received, may lead them to consider once more the momentous questions they have so rashly discussed. To say that their doctrines strike at the basis of all religion, is saying little; they strike away from under our feet all moral restraints, all reverence, all hope, all love; they would sap alike the virtue of individuals, and the integrity of states; and, if it were possible that they could ever be universally received, they would make this earth a very hell, seething in the impurities of a world, from which the divine traces of the Deity had been withdrawn.

Dr. Bushnan's analysis and refutation is a most well-timed one. It is excellently done, and will, we hope, prevent Mr. Atkinson from again parading his crude ideas on the public. Dr. Bushnan's style is easy, his facts logically arranged, and his conclusions inevitable. The only possible addition we could have wished, would have been a chapter devoted expressly to consider the obscurity of Mr. Atkinson's language, and his constant inconsistencies. As to the obscurity of language, it surpasses all credence; there are many sentences of which it is impossible to make sense; and how Miss Martineau, who has hitherto had the reputation of ability, could have accepted them, without asking what they meant, we cannot conceive. But perhaps Dr. Bushnan conceived, that Mr. Atkinson's vagueness and inaccuracy in the use of terms is sufficiently exhibited in the analysis of his opinions.

We do not wish to pay Dr. Gregory a compliment, when we say that we turn with pleasure from Mr. Atkinson to him. Completely as we differ from Dr. Gregory, to get back from Mr. Atkinson's speculations to simple mesmerism, seems by comparison returning into the region of common sense. Unfortunately, this is only by comparison; and, if Dr. Gregory's work is not so atrociously absurd as Mr. Atkinson's, this is owing merely to the infinitely narrower scope of the subjects treated of. Dr. Gregory's book is a large treatise on mesmerism, written with the fervour of a convert, and with the vigour of a man whose scientific reputation depends on the affirmation of his position. We have no intention of entering fully into it, for we have no wish to entangle ourselves at present in the thorny paths of mesmerism; but it is worth while to discover, if we can, how far Dr. Gregory's general arguments and method of regarding evidence tell in his favour.

The first letter is occupied with the consideration of what Dr. Gregory terms the "objections to animal magnetism". In few words, the gist of the chapter is, that we are not to reject "facts alleged on respectable testimony, because they appear absurd, incredible, or, in a vague sense, impossible"; and that "time will overcome the strongest prejudices", as has been seen in the establishment of the doctrines of the circulation of the blood, of vaccination, of the movements of the earth round the sun, etc. This is an argument which has been repeated over and over again by the advocates of mesmerism, as of almost every novelty; and Dr. Gregory, and others in the same position, are constantly pleased to assert that the "great truths" of mesmerism are now in the same position as were the "great truths" of astronomy, of geography, and of physiology, at the time of their first promulgation; and

that the parts of Galileo, Harvey, Jenner, and Columbus, are now enacted by the modest advocates of mesmerism, phrenology, and homœopathy. This line of argument has been so often made use of, that it is worth while to see exactly what it is worth.

When Dr. Gregory asserts that we are not to reject alleged facts (which are not clearly impossible), because they appear inconsistent with our previous experience, he is most perfectly in the right. But when any new fact is presented to the mind, the process appears to be this: The mind, seizing the new fact, compares it with other facts previously known, and, according to its greater or less knowledge of other facts, and its amount of logical power, determines the greater or less amount of probability of the alleged fact. Supposing that the evidence brought forth to support the facts is accordant with those previously known, or, not being accordant, is sufficient to counterbalance them, then the mind receives the new teaching without hesitation. All that the mind can do, or can be called upon to do, is to exercise its logical power fairly, in examining into the evidence for, and the position of, the facts. If a fact is presented, which may be in reality a great truth, yet is quite discordant with facts previously known, and the evidence of which is not such as to set aside these discordant facts, the mind logically can do nothing but refuse to admit the new truth. Thus, when Copernicus promulgated his hypothesis (for at the time it was no more) that the earth revolved round the sun, it seemed so inconsistent with what appeared to be facts, and was so little supported by arguments, especially by such arguments as could be apprehended by the generality of minds, that it was rejected by the whole world. And, logically, it was impossible that this should be otherwise; for, if this great truth had been at once welcomed by acclamation, it is evident that this could not have been the result of a proper action of mind, but would have been simply a belief without cause. Or, to take an example nearer home, English medical men have been much blamed for not immediately assenting to the doctrine of vaccination; but there is no doubt that the assent was given quite as soon as it logically ought to have been. In fact, when we look back with indignation on the men who opposed what were afterwards recognised as great truths, we do them injustice; they were often more reasonable than the advocates of the novel proposition.

When the alleged facts of clairvoyance are brought forward, would Dr. Gregory have us receive them at once? Would he not admit that the world must ponder them, must compare them with what it previously knew; must, in fact, judge them by the standard which each man possesses in his own knowledge and logical powers? Dr. Gregory will of course agree to this; but he will answer, that the facts in favour of clairvoyance, if known, are weighty enough to warrant its reception. Here we join issue, and do not hesitate to affirm that, when they are weighty enough, they will receive immediate assent. For we have no doubt that the verdict of the general body of thinkers is always given at the proper time, and that great truths never remain unacknowledged, when the evidence is logically sufficient.

We believe, then (Dr. Gregory may call this reasoning in a circle, but it is not), that the general incredulity of which he complains, proves, not that the alleged facts of clairvoyance are unknown, or foolishly rejected, but that, to the great body of thinkers of this country, they do not present themselves as truths. Dr. Gregory may say that this is no argument against their abstract truth, any more than the very reasonable incredulity of the time was an argument against vaccination. Indirectly, however, it is a very strong argument against clairvoyance; for, if the arguments for a truth are easily accessible to the multitude, there is no reason why they should not be at once received. The arguments for the Copernican theory were abstruse, and not easily appreciated, and the theory made slow progress; vaccination was supported by facts more easily ascertained, and its truth was early recognised; the effects of ether could be seen by every one, and ether and chloroform met

with immediate adoption. In a century after the death of Copernicus, all Europe believed that the earth moved and not the sun; before his death, Harvey was praised and honoured by the greatest medical corporate body in this country, the College of Physicians; in very few years, Jenner received a grant and public thanks from the House of Commons; in a few weeks, Simpson was hailed with the unanimous approbation of the profession, for the application of chloroform. If Dr. Gregory insists on instituting a parallel between these great truths and mesmerism, we cannot allow him to stop half way. He asserts that Copernicus was contemned; that Harvey was ridiculed; and that mesmerism in its turn is neglected for a time. But he should go on, and compare the length of time which the comparatively abstruse arguments for the Copernican theory and for the circulation of the blood took to establish themselves, with the length of time during which the easily apprehended so-called facts of clairvoyance have been unavailingly paraded before the world. It is now more than sixty years since Mesmer appeared before the French Academy, to prove the truth of that which even now has no firm footing among scientific men. Is it more difficult, then, to bring before us the facts of mesmerism, than the abstruse mathematical arguments of Copernicus, or the physiological ones of Harvey? On the contrary, there are abundance of mesmerisers, no lack of subjects, no difficulty in the perception of the phenomena; and yet, by the mesmerists' own shewing, they are, after sixty years, as neglected and unappreciated as were Copernicus, Galileo, and Harvey, at the first promulgation of their doctrines. We should advise Dr. Gregory to abandon his parallel, as, even taken in his own way, it tells more against than for him.

But we will turn the argument in another direction. When a novel doctrine is propounded, the proofs of which are so abstruse and peculiar, as to be unappreciable by the public generally (which is not the case with clairvoyance[1]), the uninitiated can only receive it on faith. Such faith can only be given, when it is felt that the character and logical powers of the professor of the new truth are such as to command our adhesion. Every one believes that the world goes round the sun, although not one person in ten thousand knows the demonstration of the fact. Supposing that from some cause we could not examine clairvoyance for ourselves, but had to depend on testimony; we should require, before believing the facts stated, to be satisfied that the mesmerist who had produced them was an honest man, and was also so logically constituted, as to warrant his having tested the facts in the way the public generally would test them, were they able to examine them for themselves. Thus Dr. Gregory has written a book, containing a certain number of facts about clairvoyance. These facts do not accord with our honest experience; we cannot logically receive them; but, supposing we had no experience on the subject, our next step would be, to endeavour to ascertain Dr. Gregory's logical capacity. To do this thoroughly, we should have to go systematically through his book; but, as our space does not permit this, we will take a single instance. At p. 243, we find the following statement:

"It has lately been stated by M. Allix, on the authority of M. Benoit in Paris, and of another discoverer (also I believe a Frenchman, who is now in America), both of whom, during the last ten years, have been employed in working out the discovery, which they had severally and independently made, although they are now associated to work it out, that this magnetic sympathy is remarkably developed in snails; that these animals, after having once been in communication or in contact, continue ever after to sympathise, no matter at what distance they may be. And it has been proposed to found

[1] We use the term clairvoyance in preference to mesmerism, because it implies a particular series of alleged phenomena, which we are certain have no existence; whereas some of what are absurdly called mesmeric phenomena are real.

on this fact a mode of communication between distant places. . . . . It would appear that every letter has a snail belonging to it in Paris; while in America each letter has also a snail, sympathetic with that of the same letter in Paris, the two snails of each letter having been at some period, and by some process, brought into full sympathy, and then separated and marked. When a word is to be spelled in Paris, the snail belonging to the first letter is brought by some galvanic apparatus into a state of disturbance, with which his fellow in America sympathises. But this requires to be ascertained, which is done by approaching in America, to all the snails successively, a testing apparatus, not described, which, however, includes a snail. On the approach of this, the snail whose fellow in Paris has been acted upon, exhibits some symptom which is not exhibited by any other, and the corresponding letter is noted down."

Dr. Gregory states that this at first appeared very ridiculous, but that when he recollected all "that he had seen of sympathy in men, all that was known about sympathy in the lower animals, . . . he perceived that the only difficulty lay in admitting the fact of the extraordinary sympathy between snails. Now I know nothing," continues Dr. Gregory, "about the habits of snails; and surely I am not entitled to reject facts thus attested, without some investigation into them. I cannot say that the alleged sympathy is impossible." (p. 245.)

We venture to assert, that there is not one of our readers, who will not consider that the utter want of parallel facts to this one (that is to say, its unusual nature), the opposing facts which immediately rise up in opposition to it, the deficiency of evidence which is brought forward to support it, render it impossible that any sound-judging person should place this alleged fact anywhere but on the very borders of incredibility, in the region of the highest improbability. It is clearly not impossible, but neither are hundreds of assertions which we hear daily, and which yet we feel that we may without hesitation consider as infinitely improbable. What, then, can we think of the judgment and logical powers of the man, who can allude to this improbable assertion in the following terms:

"It will certainly be very remarkable, if a snail telegraph should come into action, which, in spite of the proverbial slowness of the animal concerned, should rival in rapidity the electric telegraph, and surpass it in security; inasmuch as there are no wires to be cut by an enemy, besides being infinitely less costly, since no solid tangible means of communication are required, and all that is needed is the apparatus at either end of the line, and the properly prepared snails." (p. 246.)

We have selected this instance of facile and illogical belief, because it is the most striking we can find in the book; but the same want of judgment and discrimination pervades every page, and warrants us in asserting, that even were we at all doubtful of the error of Dr. Gregory's facts, his manner of testifying to them is so unfortunate, as to deprive us of the power of being duly impressed by them.

We need not trouble ourselves to go further into an analysis of Dr. Gregory's mental peculiarities; one specimen will suffice for all. We shall only say that Dr. Gregory must pardon us, if, admitting as we do most fully his sincerity, we must entertain the strongest doubts of his power of determining the different degrees of probability, or, in other words, of distinguishing truth from error.

The pamphlets of Drs. Hughes Bennett and Wood relate to the same subject, viz. the curious experiments which have been lately exhibited, under the absurd name of electro-biology. We believe these experiments will be of great use in opening the eyes of the public to the real source of what is true, in the phenomena which the mesmerists have so erroneously attempted to bind up into a system, and to explain by a crazy hypothesis. This curious subjugation of one mind by another, and the power of direction which the stronger mind can by suggestion give to the weaker, has been long known to medical men.

The experiments of Dr. Darling and Mr. Lewis have proved that the facility of impression, which we had thought had been the characteristic of the mind of the middle ages rather than our own, still exists among us to a great extent. Drs. Bennett and Wood's papers are very interesting; and, with Mr. Braid's papers and works, are well worthy the study of those who are interested in the remarkable mental phenomena, which the older physicians classified under the term "ecstacy".

Digitaline. Rapports de MM. Rayer, Soubeiran et Bouillaud. pp. 55. Paris, Martinet: 1851.

The first of these Reports to the Académie Nationale de Médecine, relates to the chemical and pharmaceutical properties of digitaline; the second to its physiological and therapeutical action. The works on which these Reports are founded are upon digitalis, and are written by MM. Quevenne and Homolle, who, in the preamble of the memoir which forms the subject of the first Report, use the following language: "The capital point in the chemical and therapeutical history of digitalis, the extraction of the active principle of this plant, having been attained by us, we should have confined our researches to obtaining this result, and should have been satisfied with the sanction which the Society of Pharmacy had given to this first effort, by decreeing to the memoir presented by one of us the prize proposed for the extraction of digitaline. But a great number of persons, although admitting the importance of the discovery of this principle, presented to our notice some objections, which were more or less serious. Thus, for example, what were the other bodies which accompanied the digitaline in the plant? Are there not some among them which contribute to the reputed sedative or diuretic actions of digitalis? Or rather, does digitaline by itself represent these two properties? Others inquired whether this principle always offered the desired degree of identity, and if the physician could always rely in his practice upon a sufficient degree of fixity of constitution? Some even went so far as to say that, while acknowledging that digitaline exhibited indeed the properties of the plant, they would not dare to run the risk of employing a substance of such powerful properties, in the fear of its eventual inexact administration. On the other hand, every one asked himself whether digitaline, a principle which is amorphous, or of a doubtful crystallisation, was really a pure product, or if it were not possible to disengage it from some body retained in combination, and to obtain it afterwards with new and better defined properties? Familiarised more than others with the question, we were the first to feel the value of several of these objections; to ask ourselves, for example, if there were not some of the other principles of the plant, which, alone or by themselves, might possess an action worthy of interest on the animal economy. We therefore resumed our work, stimulated by our first success, led almost irresistibly by the desire of completing our first discovery, and governed by the wish of not introducing any other than a well-studied medicine into therapeutics." The reporters then proceed to state that the first memoir is divided into two parts, one relating only to digitaline, and the other devoted to all the other principles found in digitalis. The first of these is stated by the authors as being alone of practical interest; and they add that it is to it only that they desire to draw the attention of the Academy. The reporters, however, enumerate in a foot-note the other principles besides digitaline which are found in digitalis. These are: 1. *Digitalose;* 2. *Digitalin;* 3. *Digitalide;* 4. *Digitalic acid;* 5. *Antirrhinic acid;* 6. *Digitaleic acid;* 7. *Tannic acid;* 8. *Starch;* 9. *Sugar;* 10. *Pectine;* 11. *An azotised albuminoid matter;* 12 *An orange-red crystallisable colouring matter;* 13. *Chlorophyll;* 14. *A volatile oil.*

MM. Homolle and Quevenne examine, in as many separate paragraphs,

I. *The Purification of Digitaline, and its Chemical Properties.* II. *The Test of Digitaline.* III. *The best form of administering Digitaline in Medicine.*

To purify crude digitaline, authors have treated it with ether slightly alcoholised, which takes up digitaline. But this liquor dissolves also the *digitalose*, and leaves the *digitaline*. To separate the former from the digitaline, the solution is submitted to evaporation, and the residue is treated with alcohol at 60°, which dissolves the digitaline and eliminates the digitalose. Evaporated at a gentle heat, this solution by weak alcohol gives finally *pure* digitaline, or at least retaining very little of the two bodies just indicated, which cannot be completely isolated from it; so great, according to the authors, is the obstinacy with which digitaline retains the last traces of these substances. These able experimenters vainly made numerous attempts to crystallise the digitaline so obtained, and to procure it in a purer state than the specimen formerly described by one of them. When this purification is accomplished, the digitaline presents itself under the form of scaly striæ, or of masses of a straw-yellow colour, of a resinoid aspect, more or less transparent, easily crushed, and then forming a yellowish pale powder. When once isolated, the digitaline is unalterable in the air; it possesses a slight aromatic odour of a peculiar nature, and a very marked bitterness.

Digitaline is soluble in small quantity in the serum of the blood, without producing in it any apparent change. The proportion dissolved appears to be the same as in water. It is dissolved also in filtered gastric juice. Digitaline exerts no action upon litmus. It is dissolved also in small quantity in water; and in all proportions in weak or concentrated alcohol. *The characteristic and distinctive property of digitaline is, to be coloured of an emerald green by concentrated hydrochloric acid, forming a turbid solution.* Digitaline belongs to the class of immediate neutral principles; it combines neither with acids (the tannic excepted) nor with alkalis.

To be assured of the *identity* or of the *quality* of digitaline, an important and capital point in a therapeutical view, MM. Homolle and Quevenne have paid attention to the different degrees of bitterness of this substance; for they state that its degree of bitterness is incontestably a measure of its degree of energy. To succeed in this test, the following plan is to be adopted: "One centigramme of digitaline is dissolved in two grammes of alcohol, and the mixture is progressively diluted with water, until the complete disappearance of the bitter taste. If the digitaline is good, this quantity will require the employment of two *litres* of water." This method of appreciating the intensity of the taste of bodies, employed already by other observers, to judge of the richness of certain medicinal preparations, has been considered by MM. Homolle and Quevenne as proper for enabling them to obtain digitaline always identical with itself. This test is the more indispensable, because, in conforming rigorously to the mode of preparation just described, no one can be certain of having always the same product. Digitaline, except in its action on the animal economy, does not possess, unfortunately, any essential property by which we can positively recognise its purity. It does not crystallise, and does not form any crystallisable combinations; we can therefore never affirm that it has been obtained sufficiently pure, or that it has not been mixed. Let the person who prepares digitaline, therefore, be well acquainted with the fact, that this product does not offer any suitable proofs of its purity, except inasmuch as, subject to the experiment of dilution, it gives the same result as a *type* of acknowledged purity. Let the physician be also warned that digitaline does not constitute a medicine of such a certain identity that he should neglect a great degree of prudence in its use; a prudence which, besides, is demanded by the extreme activity of this new therapeutic agent.

MM. Homolle and Quevenne having thus succeeded in obtaining digitaline in the state which they call *identical*, it remained for them to determine what was the pharmaceutic form for giving it, under the quadruple relation of

safety, convenience, good preservation, and *easy administration.* The solution of this problem was the more important, because the product under consideration possesses a very great degree of activity, so that it ought to be administered only in milligrammes, or, in fact, in an *infinitesimal* dose. Among the different pharmaceutical forms considered by MM. Homolle and Quevenne, the pilular form is that to which they have given the preference. "The variety," say these authors, "which appears to us the best, is that of little sugar-plums, in which the active matter is enveloped in a layer of sugar, so that the patient, by reason of their very small size, can swallow them easily, without mastication, and therefore without any other perception than that of the sugar which covers them." These sugar-plums are called granules by the authors, and each contains a milligramme of digitaline; and it appears that this mode of administration preserves the powers of the drug to a period of which MM. Homolle and Quevenne have not yet ascertained the limit.

In concluding the analysis of the first memoir of MM. Homolle and Quevenne, the reporters think themselves justified in declaring that the researches of those authors deserve to be placed among the discoveries of medical science, and, as a testimony of the approbation of the Académie, they recommend the memoir for publication.

II. The Second Report is upon the PHYSIOLOGICAL AND THERAPEUTICAL ACTION OF DIGITALINE, and is founded upon a second paper communicated by MM. Homolle and Quevenne upon that subject. These gentlemen propose to establish, "that digitaline is the only active principle of digitalis; that it presents all its physiological and therapeutical properties, and that the constancy of its effects, as well as its unchangeableness, give it an incontestable advantage over the pharmaceutical preparations of digitalis." In order to give to the Académie a just account of the labours of MM. Homolle and Quevenne, the reporters divide their analysis into three parts. The first is devoted to a rapid sketch of the opinions expressed upon the properties of digitalis: the second relates to the examination of the researches made by the authors of the memoir on the properties of digitaline: and the third contains the account of the experiments instituted by the commission.

1. This part of the report does not require a detailed examination, as it presents no novelty, except, perhaps, the analogy drawn by the reporter between the effects of digitalis and those of *retained bile*, as observed in jaundice. The reporter states, that he has observed for eighteen years the effects of this *animal digitalis*, as he somewhat fancifully terms it, and that it invariably retards the pulse, except in those cases where jaundice is accompanied by inflammation and fever.

2. This part contains an account of a series of physiological and pathological experiments on the properties of digitaline, compared with those of the other preparations of digitalis. One of the authors made a series of experiments on himself, and his exemplary exactness in recording the results is warmly eulogised by the reporters. From the analysis of the first six trials, undertaken in the course of the years 1842, 1843, 1847, 1848, 1850, it results that the *medium* of the diminution in number of the pulsations of the heart and arteries has been about four pulsations *during*, and four *after*, the administration of the medicine. Experiments made on two dogs proved that, in one, the pulse was lowered from 59 to 51, and in the other, from 87 to 69, by the administration of minute doses of digitaline. As to the comparative efficacy of the preparations of digitalis hitherto employed, and of digitaline, MM. Homolle and Quevenne leave this point to be finally determined by clinical experience; but they think that their own observations, and the works published up to the present time, lead to the belief that the question will be resolved in favour of digitaline; and they quote the authority of MM. Hervieux, Strohl, and Sandras, who have all employed the digitaline in their practice with the

most happy results. M. Hervieux states, that one of the circumstances which plead most in favour of digitaline, is the facility of apportioning the dose; for, while this can be done in the case of the preparations of digitalis only by a very rough approximation, it can be accomplished in the case of digitaline with a mathematical rigour. M. Sandras declares, that he has never met with the inconveniences attributed to digitalis, while he has employed digitaline; the latter has appeared to him to be easy to take, and easy for the patient to bear; its effect has been perfectly fixed and regular, according to the doses in which he prescribed it. Some clinical observations made by MM. Homolle and Quevenne are then related, but we cannot say either that the cases seem to be well chosen, or the results accurately noted; and the indiscriminate manner in which the digitaline was prescribed, is not to be commended. In the first case, for instance, there was a "puerperal affection", but we are not told what was its nature; in the second, there was an "affection of the heart", and a "profound disturbance of the circulation"; in the third case, there was hypertrophy of the heart, with "lesion of the orifices"; in the fourth case, there was "profound perturbation of the cardiac circulation"; all these terms are far too vague for the present advanced state of science. Again, the digitaline was given in the seventh case for cyanosis, from persistence of the foramen ovale; and in the sixth, it was given in large doses for anasarca with albuminous urine. In our humble opinion, neither of these diseases would justify the use of digitalis in any form.

The following statement by the authors is of extreme importance, and completely accounts for the frequent uncertainty which attends the employment of digitalis in medical practice. "We have been able", say MM. Homolle and Quevenne, "to ascertain, when we have procured our specimens of digitalis, that, in the quantity which existed in 1847 on the Place de Paris, there was about a fourth part well dried, a fourth of middling quality, and half which was badly dried and manifestly bad. It is evident that this last and considerable fraction was not thrown away; and, as digitalis has only a medical use, we are obliged to admit that it has been consumed by the sick."

3. In this portion, one of the reporters (we believe M. Bouillaud) records his own clinical experience of the effects of digitaline, which he has given to 150 or 200 patients, of different age and sex. The cases in which it was administered were simple nervous diseases of the heart, but principally chronic organic affections of this organ; and a few were well-ascertained cases of intermittent fever. In all these, with the exception of three, there was a more or less considerable retardation of the pulsations of the heart and arteries; and in the three exceptions, the frequency of the pulse was maintained by a febrile phlegmasia. In several cases, also, where the acceleration of the pulsations of the heart was accompanied by irregularities and intermissions, with disorder and disturbance of its natural rhythm, digitaline not only calmed the palpitations, but it also regulated the disordered action of the organ. In intermittent fever also, the reporter has found digitaline of equal importance with digitalis, which latter he has been in the habit of prescribing with advantage in this disease, although he does not by any means assert that it is superior, or even equal, to quina as an antiperiodic and febrifuge. The commission does not decide in the present communication upon the question of the superiority of digitaline over the other preparations of digitalis, but leaves it for future investigation: and they conclude their very excellent report by a well-deserved tribute of praise to MM. Homolle and Quevenne, for their investigations on the preparation and properties of digitaline.

HAND-BOOK OF NATURAL PHILOSOPHY AND ASTRONOMY. By DIONYSIUS LARDNER, D.C.L., formerly Professor of Natural Philosophy and Astronomy in University College, London. *First Course:* Mechanics—Hydrostatics—Hydraulics—Pneumatics—Sound—Optics. pp. 819. London, 1851.

This is one of the best elementary treatises on Natural Philosophy which we have ever read; and to those who wish to obtain a knowledge of this important branch of science without wading through a multitude of huge volumes, we cordially recommend its perusal. The author is favourably known to the public by his numerous contributions to physical science, and the present work is well calculated to sustain his high reputation. While advocating the necessity of at least some knowledge of natural philosophy for all the educated classes of society, we would especially recommend that it should not be neglected by the members of our own profession; and although we admit that the student's time is pretty well occupied by sciences immediately connected with his future pursuits, yet there are periods of his pupilage, and leisure hours in practice, when works like the present may be read with pleasure and advantage. To the physiological student, an acquaintance with natural philosophy is indispensable; for although we do not agree with some learned authorities that the principle of life is a galvanic battery, or with others that the pulsations of the heart are produced by a series of chemical combinations and decompositions, yet we cannot but see that many of the functions of the human body are performed by means of laws exactly similar to those which act upon inanimate matter. Thus, whatever may be the origin of nervous influence or of muscular power, there can be no doubt that the limbs with their muscles form nothing more nor less than a series of levers—that the circulation of the blood is regulated by the laws of hydraulics—that the faculties of hearing and speaking, with all their attendant enjoyments, are closely connected with the principles of acoustics—that the beautiful mechanism of the eye is merely a series of membranes and humours for the reflection, refraction, transmission and absorption of the luminous rays—and that its defects may be remedied by the use of instruments constructed upon optical principles. We are happy to observe, that Dr. Lardner omits no opportunity of directing attention to the relation of physics to the mechanism of the human body; and, although his acquaintance with anatomy and physiology is not conspicuous, yet his occasional references to those subjects are particularly welcome to the medical reader, and exhibit the versatile and varied talents of the author.

HISTOIRE DE LA VACCINATION EN TURQUIE, EN GRÈCE, ET AUX INDES ORIENTALES. Par JEAN DE CARRO, Docteur en Médecine. pp. 116. Vienne: 1804.

GERMAN TRANSLATION of the above work, with Additions and Annotations. By FRIEDRICH GOTTHILF FRIESE, M.D. pp. 175. Breslau: 1804.

This is a highly interesting account of the introduction of Vaccination into the east of Europe, and Asia, for which the inhabitants of those countries are indebted to the philanthropic and persevering zeal of DR. DE CARRO. It will be remembered, that we published, in our account of the proceedings of the Jenner Monument Committee, at p. 682 of our number for July, a letter from Dr. de Carro, to which was appended a brief statement of the services which he had rendered in the dissemination of vaccination in foreign countries. The interest attached to the subject will, we trust, form a sufficient apology—if any be needed—for our thus noticing a work published nearly half a century ago.

The introduction of vaccination into Turkey appears to have arisen from a conversation between Dr. de Carro and the father and mother of Lady Elgin, wife of the British Ambassador at Constantinople. In December 1800,

Lord Elgin communicated to Dr. de Carro the news of the first successful attempt at vaccination in Turkey, on the person of his infant son ; and from the matter taken from the child, several other persons were vaccinated. Under the encouragement and direction of Lord Elgin, Dr. W. Scott, Dr. Hesse, etc., vaccination made progress ; although it was retarded in a measure by the prejudices of the inhabitants, and other causes, so that the matter often became exhausted, and fresh supplies had to be obtained from Dr. de Carro in Austria, and from England.

In March 1802, Lord and Lady Elgin, with Dr. Scott, visited Greece and the Archipelago ; and on the 7th November in that year, Dr. Scott wrote to Dr. de Carro, that vaccination had been commenced in Athens, and that upwards of eighty persons of all ages had been submitted to the operation in that city. The British consul at Salonica was supplied with vaccine matter for the use of M. La Font, a French physician practising in that place. This matter, supplied by Lord Elgin, at first failed : but, on a supply being received by M. La Font from Dr. de Carro, the success was most encouraging. "All the inhabitants of that town adopted vaccination with a zeal worthy of the most enlightened people : Turks, Armenians, Greeks, and Franks, all had recourse to this preservative. In a word, on March 3, 1803, six months after commencing the practice, M. La Font had vaccinated above 600 persons ; and the number had risen to 1132 on June 3, in the same year. The inhabitants of neighbouring towns are also desirous of enjoying the benefit ; he has received a pressing invitation from the inhabitants of Larissa in Thessaly ; but, as his occupations do not permit him to leave Salonica, he has deputed pupils to vaccinate in any place in which the inhabitants may desire it." (pp. 14, 15.) Under the care of Dr. Moreschi, and other physicians, vaccination became general in Greece.

In the mean time, great sensation had been produced in Asia by the news of the introduction of vaccination into Constantinople : and Lord Elgin thus wrote to Sir A. Paget, ambassador extraordinary at Vienna, in January 1802: "They write to me so often from Bassora, the East Indies, and Ceylon, for vaccine matter, that I beg you will immediately engage Dr. de Carro to send me some by all the couriers, until I desire him to desist. That which I have sent has produced no effect." A supply was sent to Bassora and Bagdad ; and thence vaccination rapidly extended over Asia. The accounts furnished from time to time to Dr. de Carro, by the British consuls and residents in Bagdad and other Eastern cities, must have been most encouraging to his energetic zeal ; but we regret that we cannot reproduce them at greater length.

Interspersed in the work are various pathological observations on the relation of cow-pox to the grease in horses, on its efficacy as a preventative of the plague, on the mode of preservation of vaccine matter, etc. There is also a copy of a *procès-verbal*, signed by Dr. A. B. Auban of Constantinople, and some of his colleagues, attesting the presence of cow-pox in certain small villages near Constantinople, in which the inhabitants, after becoming infected by it, remained free from the small-pox and from plague.

Since the time when this work was written, vaccination has become an everyday occurrence throughout the civilised world ; and, though it may not have met with all the success which some of its more sanguine promoters perhaps anticipated, the amount of benefit conferred by the discovery of Jenner is too great to be particularised. The committee now engaged in promoting the erection of a monument to Jenner are engaged in a worthy task—that of enabling the whole civilised world to display a tangible memorial of their gratitude to the memory of one of their greatest benefactors. We heartily wish them success in their endeavours.

As to the venerable author of the work before us, we can imagine with what satisfaction he must regard the success which has attended his endea-

vours, commenced upwards of half a century ago, to disseminate the blessings of vaccination. Titles and honourable marks of distinction have been, even up to his old age, conferred on him ; yet we doubt not that he values before all these the appellation of "*the friend and first apostle of Jenner*". Of himself, as the introducer of vaccination into the continent of Europe, he may say—

"Exegi monumentum ære perennius."

In concluding, let us express the sincere hope, that Dr. de Carro may long live in health and vigour; and that he may speedily see the completion of the London monument to Edward Jenner.

On Diseases of the Mucous Membrane of the Throat, and their Treatment by Topical Medication. By William R. Wagstaff, M.A., M.D., etc. pp. 183. London: 1851.

In this treatise, attention is drawn in a special manner to the effects of morbid action in the muciparous glands, and to those conditions of the mucous membrane which impair its organic function. A classification of these diseases is adopted, which has direct reference to the tissue supposed to be primarily affected by the morbific influences. As there is nothing, either in the pathology or the symptoms described, which need detain us, we shall address ourselves at once to those parts of Dr. Wagstaff's treatise in which he proposes "topical medication" as a substitute for "those general remedies, which are so carefully dwelt on by most writers". "Unless some manifest disease", observes Dr. Wagstaff, "appears to have affected all parts of the system, as is often the case in influenza, no general remedial measures of any moment will be required ; the disease, being a local one, will need little beside local treatment for its removal". (p. 41.)

We would perfectly agree with Dr. Wagstaff that, provided a disease be indeed a local one, it will require little more than a local remedy. But the whole progress of modern science seems to point out, that we can no more study with advantage the diseases of separate parts, unconnected with the general system, than our forefathers could learn their anatomy correctly with the nerves and arteries spread out before them upon a board. All the blood in the body is continually passing through the lungs, and may communicate to them conditions, the result of influences which it has received in any part of the body; and how often these may give rise to symptoms similar to those of "acute catarrh", derived only from strictly local causes, we have yet to learn. The remedial measure upon which Dr. Wagstaff relies with the greatest confidence, "is the application of a powerful astringent directly to the affected portion of the mucous membrane, or as near to the diseased part as our present knowledge and mechanical appliances will enable us to make it". (p. 43.)

The first case related by Dr. Wagstaff of the efficacy of this treatment is quoted from Sir C. Bell, and is not calculated to confirm our notions of the local origin of the diseases of these parts. It is the case of a young woman, who had extensive ulceration of the glottis, which was followed by long-continued inflammation of the throat, and accompanied by a harsh, sawing sound, and with much difficulty in breathing. On attempting to swallow a little broth, much of it went into the wind-pipe, and she had a great struggle in recovering. (p. 45.) In this case, Sir C. Bell found that the irritation was much relieved by the application of the nitrate of silver ; and we do not doubt the propriety of this mode of treatment, but we believe that there are few well-informed physicians, or surgeons, in the present day, who would not have directed their principal attention to the previous history of the case, and endeavoured to ascertain what vice of constitution, or taint in the system, had been the original cause of the ulceration, and have treated the patient accordingly.

The instrument employed by Dr. Wagstaff for the topical medication is "a whalebone probang, to the end of which a small rounded piece of fine sponge is attached. The method of employing this is, to convey the end of a spatula to the lingual base of the epiglottis, then, by pressing the tongue firmly down and drawing it forward, the laryngeal surface of the epiglottis may be exposed; when this organ is brought fairly in view, the great difficulty of the operation is overcome; for it only remains to direct the patient to inspire gently, and to pass the sponge of the probang to the posterior surface of the epiglottis, and, by a rapid motion, to press it *downward* and *forward* in order to introduce it into the larynx." (p. 52,)

The substances employed are the perchlor. hydrarg., the bicyanid. hydrarg., the nitras hydrarg., the nitras potass., the sulphas cupri, and the nitras argent. Of all these, that to which Dr. Wagstaff gives the decided preference is the nitrate of silver, on account of "its rapid action, its efficacy, and its harmlessness". A solution of twenty grains of the salt to an ounce of distilled water, is recommended in the milder cases; and this may be increased, according to circumstances, to sixty or even to eighty grains.

The efficacy of nitrate of silver has lately been extolled for many different affections, and its use has been particularly recommended for diseases of internal cavities. We cannot help thinking, that much of its mysterious virtue would disappear, if its effects were accurately and honestly observed on the surface of the body. When there is difficulty in applying it, and where its results are not readily observed, the curative virtues attributed to it are rather startling. The diseases of the ears, eyes, and nose, of the urethra and uterus, all in turn yield a willing obedience to its magic influence.

In making these observations, we by no means wish to disparage the use of nitrate of silver as a valuable adjunct in the treatment of diseases of these parts; but we would caution our readers against adopting favorite opinions of its "specific" virtues, which in practice would not be realised.

The First Step in Chemistry. By Robert Galloway, F.C.S., Lecturer on Chemistry in Putney College. pp. 91. London: 1851.

This is a very well-written little volume, and will be of use in introducing the study of chemistry into schools, as a part of the education of youth. It is divided into ten chapters, which comprise many of the fundamental laws of the science, and it contains numerous exercises, dispersed among the chapters, to be performed by the student, and calculated to fix in his mind the principles of the foregoing explanations. It has often been to us a matter of surprise, that the subject of chemistry has not yet been adopted at boys' schools; one reason for this may be, that the books written on this science are too difficult for beginners. The work now before us is calculated to supply this defect; and deeply impressed as we are with the importance of teaching chemistry to the youth of this country, in which the science has already made, and is still making, such brilliant progress, we heartily commend this unpretending and useful work to the heads of scholastic establishments, and to others who are anxious to initiate their pupils into the principles of a most fascinating and most useful branch of human knowledge.

On Gout; its History, its Causes, and its Cure. By Wm. Gairdner, M.D. *Second Edition.* pp. 300. London: 1851.

Dr. Gairdner has availed himself of the demand for a second edition, to improve and amplify his excellent treatise.

CRITICAL DIGEST OF THE BRITISH AND FOREIGN MEDICAL JOURNALS.

ANATOMY AND PHYSIOLOGY.

PROFESSOR SIMPSON ON VITAL CONTRACTIONS IN THE UMBILICAL ARTERIES AND VEINS.

Up to a late period, some physiologists doubted entirely whether the larger arteries of the human body could be made to contract at individual points by stimulants applied to those points. Few or no satisfactory experiments have yet been published, shewing that the veins possess the property of contracting locally under local stimuli. But, in the umbilical cord, the medical practitioner may have daily an opportunity of repeating experiments, which prove both of these important physiological facts: viz. the contraction both of the tubes of arteries, and of the tubes of veins, under local stimuli applied to them.

For some time past, Dr. Simpson has pointed out to his pupils the following facts, regarding the contractility of the umbilical veins and arteries.

1. After the child is born, the cord (whether tied or not) is generally seen to become contracted at different points, in consequence of the local contraction at those points of the vessels included within it. In fact, its vessels are thrown, by the irritation of the external atmosphere, and in consequence of their partially empty condition, into tubes consisting of a series of dilatations and contractions, like the peristaltic contractions of the intestine; but with this difference, that the contractions of the vessels are permanent.

2. By pinching a portion of the cord, immediately after the birth of the child, between the nails of the thumb and finger, contractions of the vessels of the cord will be seen to occur at the point irritated. And if this mechanical irritation is confined to individual vessels, as to one of the arteries, or to the vein, the effect is equally marked.

3. If the sheath of the cord be slit up by a pair of scissors or a knife, with any of its vessels or arteries exposed, the same experiment may be repeated upon the exposed individual vessels with similar effect: viz., that the mechanical pinching of them will be followed, in the course of a short time, by a gradual but very marked contraction in the irritated part.

4. Similar local contractions of these vessels occur, under the local application to them of irritating chemical substances, or of electricity.

5. These contractions do not instantly follow the application of the stimulant, but a short time intervenes before the effect is seen, and the contraction is permanent.

6. When the experiment is made upon the human umbilical cord, or upon that of the lower animals, when the circulation is still going on in the vessels of the cord, the irritated vessel will sometimes almost entirely close its tube under such local irritation.

7. These simple experiments, illustrative of the contractility and irritability of the coats of the veins and arteries, are the more remarkable as seen in the umbilical veins and arteries, in consequence of anatomists not being able to detect any nerves in the umbilical cord; although probably elementary nervous tissue may exist in some form in it. For if it did not exist, then we would have irritability in these vessels existing without nervous influence. Dr. Simpson proposed the investigation of the existence of nerve in any form in the umbilical cord and its vessels, as an interesting microscopical study, in reference to the physiological question of the dependence or independence of the contractility of vessels on the presence of nerves. [*Monthly Journal of Medical Science*, May 1851.]

PRACTICE OF MEDICINE AND PATHOLOGY.

PROFESSOR CHRISTISON ON THE TREATMENT OF ASCITES AND OTHER FORMS OF DROPSY BY DIURETICS EXTERNALLY APPLIED.

In the *Edinburgh Monthly Journal* for October 1850, Dr. CHRISTISON makes the following remarks:

"Some years ago, a short paper appeared in a French periodical, on the treatment of ascites by means of digitalis and squill applied outwardly in the form of liniment; and three cases were given, illustrating the diuretic and curative effects of this treatment, after failure by means of diuretics administered in the usual way, as well as by powerful purgatives. At the time, I had under my charge a boy, ten years of age, who had laboured under simple ascites—that is, without any œdema, even in the limbs—for a period of five or six months, during which the effusion had slowly and steadily increased, notwithstanding the employment of brisk purgatives, various powerful diuretics, and mercurial action. There was great difficulty in referring this affection to any particular organic disease; but, on the whole, a previous chronic peritonitis was suspected to be the cause. When he came under my care, purgatives and diuretics internally were again tried, and especially digitalis and squill, but with no better success than before. On the contrary, the enlargement and tension of the belly became gradually very great, so that the boy was confined in a great measure to bed. The French suggestion came therefore most opportunely. A mixture of equal parts of tincture of digitalis, tincture of squill, and tincture of soap, was rubbed freely and diligently into the skin of the belly morning and evening. At an early period,—so early, if I do not mistake, as the beginning of the third day,—the urine began for the first time to increase; by and by a copious flow was established; the ascites quickly subsided, and in about fourteen days entirely disappeared; the boy at the same time gained flesh and strength under the use of simple bitters and chalybeates, and, ere long, his health was completely restored. When I last heard of him, four or five years afterwards, he continued well and strong.

"The same treatment was tried afterwards in several cases more or less similar to this, but for a time with invariable disappointment. In all, however, the more ordinary measures had previously been exhausted to no purpose; and, in most of them, decided organic disease of some abdominal organ was ascertained to be the cause of the effusion. At length the following remarkable case revived the hopes excited by the first experiment. A boy, about nine years of age, had been affected with enlargement of the liver and ascites for nearly a twelvemonth. Dr. James Duncan, his medical attendant, had employed all the most serviceable remedies, but to very little purpose. Mercury, iodine, purgatives, diuretics, both vegetable and mineral, had been faithfully given, occasionally with partial effect, but not with any satisfactory amendment. At length the ascitical distension became enormous, the integuments acquired a glistening translucent appearance, the respiration was impeded, and the tightness of the skin prevented the nature and extent of the disease of the liver from being ascertained. But there was no œdema, even in the limbs. In this state I saw him for the first time. Before resorting to the temporary expedient of tapping, it was proposed to make trial of the diuretic liniment; but the integuments were so irritable, that the method by friction could not be persevered with. Dr. Duncan, however, proposed to substitute a strong infusion of digitalis, four times the pharmaceutic strength, and to apply it continuously by linen cloths covered with oil-silk to impede evaporation. In a few days, diuresis set in; and a profuse flow of urine quickly removed the whole dropsical effusion. The liver was soon felt to be greatly enlarged, lobulated, and rugose; which dis-

ease, it need scarcely be added, proved fatal a few months afterwards. But it is remarkable that the ascites never returned.

"I have often used the same method since, both in simple ascites, and likewise where that affection formed a prominent part of a more general dropsy. The issue has of course been variable, and more frequently unfavourable than successful. But, on the whole, the results of my own observation, and the experience of others in Edinburgh, who have also tried the practice, lead to the conclusion, that digitalis not unfrequently succeeds in this way, when not only it, but likewise all other diuretics taken internally, as well as the purgative method of cure, prove of no avail. It has likewise been tried with success in a few cases of obstinate excessive œdema of the limbs, in connexion with general anasarca and Bright's disease of the kidneys, after diaphoretics, purgatives, and diuretics internally, had failed to give relief. The late invention of the texture called 'Spongio-piline' has facilitated the application of the treatment. A large sheet of spongio-piline, soaked moderately with a strong infusion of digitalis, made with one ounce of powdered leaves to twenty-four ounces of boiling water, may be applied to the whole abdomen, or to each limb, and worn constantly, without any material inconvenience to the patient."

NARCISSUS PSEUDO-NARCISSUS IN EPILEPSY.

None of the plants of the narcissus tribe are, in this country, employed in medicine; but in France, the leaves and flowers of the N. pseudo-narcissus have a considerable reputation, especially in hooping-cough and other spasmodic affections.

In the *Journal de Médecine et de Chirurgie* for May 1851, it is stated that Dr. Pichot has recently celebrated the virtues of this plant in epilepsy. He gave it to a man of twenty-three, who had been subject to epileptic attacks for four months. Each fit lasted for from one to four hours; and terminated by general convulsions and cries. He was bled from the arm; and afterwards, sulphate of quinine, with extract of valerian, were administered without result. On the 22nd of September, the first dose of the N. pseudo-narcissus was administered; and from that time, for fifteen days, three decigrammes were given twice a day. After this time, he discontinued the medicine for a week, when the dose was increased; and, towards the end of the month, he was taking four daily doses of three decigrammes. Up to the 2nd November he had had no more fits; he only experienced some transient sensations of giddiness; but on this account it was thought right to advise the continuance of a remedy, to which, there seemed no reason to doubt, his amelioration ought to be ascribed.

TETANUS TREATED BY FRICTIONS WITH CHLOROFORM AND WITH ETHER.

Dr. Morisseau relates the following case in the *Union Médicale* for June 21, 1851.

About eighteen months ago, he had as a patient in hospital a man, aged above forty, who was suffering from traumatic tetanus. When seen by Dr. Morisseau, the patient had permanent contraction of the muscles of the jaw, chest, abdomen, and back, with convulsive movements every hour. Four grammes of chloroform were ordered to be rubbed immediately on the surface of the body; and this was repeated three times in the day. In the evening, the patient was put into an acidulated vapour bath. The next morning, the patient had perspired copiously; and he had slept, which he had not done since he was first attacked. Some spoonfuls of liquid had been swallowed; the muscles were less tense, and the convulsions were less frequent and of shorter duration. Twenty grammes of chloroform were ordered to be rubbed in during the day—a third part each time. The treatment was continued

during five days; the perspiration continued; and, on the sixth day, there was nothing remaining but some general languor and great weakness, from which the patient soon recovered under proper diet and exercise.

Dr. Morisseau does not hence infer that chloroform is entirely preferable to quinine in tetanus. Both may be good in certain cases—perhaps in all; but we may be permitted to prefer the shortest and most certain remedy. He would, in other similar cases, again use chloroform, sometimes giving quinine at the same time.

Dr. Aran has appended the following note to the communication of which the above is an abstract.

The case related by M. Morisseau is, as far as we know, the first in which friction with chloroform has been successfully employed in tetanus. The good effects which it has been shewn to possess in combating cholera cramps, painful contractions, choreic spasms, etc., would lead one to expect something from it in tetanus. Frictions with sulphuric ether have already been used in this disease, as appears from the following case, related by M. Tibaldi in a recent number of the *Gazetta Medica Lombarda.*

A labourer, aged 28, was attacked with tetanus, two days after lying on the damp ground, while in a state of perspiration. When first seen by M. Tibaldi, he was in a state of well-marked tetanus. In pursuance of the treatment generally adopted in that country in tetanus, he was bled eight several times during five days, sometimes to as much as twenty ounces; and above a hundred leeches were applied to the painful parts. On the sixth day, the state of the patient being still severe, M. Tibaldi had the loins rubbed twice with sulphuric ether; the patient was bled a ninth time, and took half a grain of acetate of morphia. The frictions put a stop to the spasmodic twitchings of which the patient complained. The next day, he was again bled; and an ounce of ether was rubbed over the back and neck. On the third day, the patient could sit up; and, in about ten days, he was convalescent.

DOES THE FREQUENCY OF ANAL FISTULA IN PHTHISICAL PATIENTS SUGGEST ANY THERAPEUTIC IMITATION OF A SIMILAR DRAIN?

It is well known, that fistula in ano is often met with in phthisical patients; and it is also pretty generally admitted, that the pulmonary disease is accelerated by the cure of the local malady. From these considerations, M. Borson suggests that benefit may be derived in phthisis by artificially establishing an emunctory in the neighbourhood of the anus. He recently made an experiment of this kind upon a man in the second stage of phthisis at the Hôtel Dieu of Chambery. The symptoms are said to have been much relieved; but he left the hospital too soon for the results to be reported in a satisfactory manner. [*Journal de Méd. et de Chirurgie,* May 1851.]

INVOLUNTARY EXCRETIONS OF THE INSANE, TREATED BY STRYCHNIA.

M. Girard, physician to the lunatic asylum at Auxerre, mentioned, at the meeting of the Académie de Médecine, on June 10, that he had employed sulphate of strychnia as a remedy for involuntary evacuations in the insane. Two centigrammes (about gr. $\frac{1}{3}$) are mixed with 30 grammes (463 grains) of simple syrup. The daily dose of this compound is at first five grammes, gradually increased, sometimes to as much as thirty or forty grammes. M. Girard has not observed cerebral congestion to be produced in any case, when the medicine was carefully given. In three cases, he pushed the dose to a hundred grammes; and then some convulsive movements were produced, which readily disappeared when the medicine was discontinued and warm baths were used. [*Gazette Médicale de Paris,* June 14, 1851.]

TREATMENT OF ACUTE RHEUMATISM BY CROTON OIL.

During the last five years, Dr. G. L. Upshur, of Philadelphia, U.S., has treated eleven cases of acute rheumatism with croton oil, with the most satisfactory results. The patients were purged daily, or every second day, according to the severity of the disease, until the inflammatory symptoms were completely subdued. He says, in the *Philadelphia Medical Examiner* for October 1850:—

Of croton oil as a purgative in acute rheumatism, I am prepared to speak in the highest terms. Cathartics have always stood in the front rank of remedies in this disease, but I am disposed to believe that the efficacy of croton oil does not depend entirely upon its cathartic properties. It possesses a power over the disease beyond these, and apparently not depending on them; for other cathartics, which act as powerfully and as promptly, producing similar watery stools, do not bring a like amount of relief to the patient. I do not say that it is a specific, for I am not a believer in the doctrine of specifics in medicine; I merely desire to state, that, after a fair trial, in a number of cases accurately observed, where there was scarcely a possibility of falling into error, I believe that the croton oil is the best single remedy in the treatment of acute rheumatism. I speak not of chronic rheumatism, nor of that which results from a syphilitic taint, but of the acute inflammatory affection. In all the eleven cases, in which it was given, its beneficial attempt was palpably evident.

Dr. W. A. Thom, to whom I am indebted for the first hint in regard to the value of croton oil in this disease, informed me, about two years ago, that he had used it in several severe cases, and uniformly with success. [*Charleston Medical Journal,* March 1851.]

SURGERY.

FRACTURE OF THE ANTERIOR PORTION OF THE OS CALCIS.

Dr. Ruschenberger, Surgeon U.S. Navy, records the following case in the *Philadelphia Medical Examiner* for May 1851, p. 289.

Case. On the 24th Nov. 1850, Lieutenant W. (aged 32, athletic, weighing 190 lbs.), while in a paroxysm of mental aberration, leaped from the wall enclosing the U.S. Naval Hospital at New York, at a point where it is fifteen feet high, and alighted on his soles, on the hard gravel-paved side walk of the street. At the time, he was in his slippers. At first, he was insensible. When he recovered from that state, he said to Dr. R. that he felt as if "all the bones of his feet were crushed". Both ankles and feet were contused. Distinct crepitus was heard on moving the left foot. Below the malleolus externus, and a little anterior to the axis of the fibula, was a projection caused by a fragment of bone, estimated to be about a cubic inch in size, which was seized between the thumb and fingers, and moved easily, but not extensively, beneath the skin. Moving this fragment caused distinct crepitus and severe pain. The toes and metatarsus could be turned inwards, on a plane with the sole, almost to a right angle, owing to a partial separation of the metatarsal from the tarsal bones. There was nothing abnormal observed in the motions of the astragalus upon the tibia. There was no displacement of the posterior extremity of the os calcis; but the patient stated subsequently, that, when his consciousness returned, he found the heel bone drawn up out of place. There was no fracture of the tibia or fibula. Pressure posterior to the cuboid shewed an unusual yielding space in that region. Cold water dressings were applied to the feet and ankle; and a fourth of a grain of the meconate of morphia was administered on the 30th, the sixth day after the accident, the left ankle and foot were carefully examined. The anterior and external portion of the os calcis, which articulates with the os cuboides, was fractured and separated; the fragment lying below, and pro-

jecting externally beyond the malleolar process of the fibula. Firm steady pressure by the thumbs, directed forward and inward, reduced it, the fragment suddenly slipping into place. A roller was turned firmly around the foot, and over a compress placed upon the fractured portion. The entire leg and foot were then encased in felt, previously softened, and the whole dressing retained in place by a roller. On the 2nd December, "although unable to bear either foot in a pendent or vertical position without discomfort and pain", he was conveyed home at his own earnest request; and Dr. Ruschenberger "has been told that he is not lame".

Remarks. Dr. R. says: "The accident was probably caused by the sole of the foot coming in violent contact with some inequality, such as a small pebble, opposite to the anterior extremity of the os calcis.

"About a week after this fracture, a boy of seventeen years of age, weighing probably less than a hundred pounds, attempted to desert, and leaped the wall at the same point. In his case there was severe contusion and sprains of both ankles, but no fracture. He was able to limp away nearly a half mile." (p. 291.)

DISLOCATION OF THE OS SCAPHOIDES.

Dislocations of the bones of the foot are rare, in consequence of the great strength of the ligaments by which they are bound together, and the very limited motion of which they are capable. The following case is therefore possessed of some interest: it is reported by Dr. Norris, of the Pennsylvania Hospital, in the *Pennsylvania Medical Examiner* for May 1851, p. 303.

Case. The patient, a large, pale, sickly man, was brought to the hospital on the 13th Feb. 1850. While in the delirium of fever, he had leaped from a window about twenty feet high, alighting on the ball of the foot. There was a very marked prominence on the upper surface of the foot, immediately posterior to the articulation of the first metatarsal bone; and the man complained of pain on attempting any movement of the foot. The integument was tense, but there was no external wound. An assistant having been directed to secure the leg, reduction was effected by placing the left hand on the foot, immediately in advance of the leg, while the right hand firmly grasped the extremity of the metatarsal bones, at the same time that the thumb was pressing back the prominent bone. Strong traction having been made, the bone suddenly yielded, slipped into its place with a snap, the patient screamed with pain, and the deformity at once disappeared. A figure-of-8 roller was applied over the foot, and the man closely watched. At the end of twelve hours, this was removed; but as there was no increase of swelling, it was reapplied. The man remained several weeks under treatment for his fever. On his dismissal, he was able, with a cane, to walk without difficulty.

CASE OF GLOSSITIS.

The following case, by Dr. C. T. Quintard, of Roswell, Georgiana, U.S., is quoted by the *Boston Medical and Surgical Journal* from the *Southern Medical and Surgical Journal*.

Case. On September 23, Dr. Quintard was called in consultation to see J. F., a wagoner, aged 28, who had been ill four days. Six weeks before, a dentist, in attempting to extract one of the larger molars on the right side, had broken off the crown, and left the root. For ten days a continuous pain was felt; it then became intermittent until the 12th instant, when it ceased. On the evening of the 19th, the pain returned; the patient applied a few drops of oil of cloves, and went to sleep. In the morning, the pain became severe, and the tongue was slightly swollen. During the 20th, he complained of pain in the back, and general *malaise*. In the evening, Dr. P. visited the

patient, prescribed a cathartic, and applied a blister about the anterior part of the neck.

Sept. 20*th.* The tongue, sub-lingual, and sub-maxillary glands, were much swollen; pain severe; the masseter muscles were rigid, particularly the right.

Sept. 22d. The patient was unable to articulate; tongue protruded between the lips, tense, red, and painful to the touch; breathing laborious; brow bathed in perspiration; surface in other places hot; pulse 100, and full; saliva flowing profusely. He had passed a restless night, with constant pain. He had had no dejection since the operation of the cathartic given on the 19th. He was bled to 25 oz.; a large dose of Epsom salts was administered, and a poultice of hops and meal applied to the neck. He was much relieved by the bleeding, and was able, after some effort, to swallow the salts. 6 P.M. Breathing easier; tongue not so painful; salts had operated well. The pulse being about the same as before, twenty-five ounces more blood were drawn, together with six or eight ounces by cups under the clavicles. At 9 o'clock, there was a free discharge of fetid pus from an abscess at the base of the tongue.

Sept. 23*d.* The patient was sitting up, quite cheerful. No pain; tongue not so much swollen, nor much lessened. The finger could not be passed back to the base of the tongue. Chicken-broth was ordered. In the evening, the discharge had ceased, but was renewed by using a probe.

Sept. 24*th.* The patient slept well till towards morning, when there was a recurrence of pain. The right side of the tongue was now more swollen than the left; and as there was evidently another abscess forming, and the pulse was again full and frequent, half a grain of tartar emetic was given every two hours. 5 P.M. He had taken but two doses of the tartar emetic, which acted freely on the bowels, as well as producing the desired effect. At 2 o'clock, the second abscess discharged much offensive pus. A cup of strong green tea, and half a grain of morphia, were ordered to be taken at 8 o'clock.

Sept. 25*th.* The patient was convalescent.

Among the causes which predispose to glossitis, are reckoned compression of the jugular veins (Stahl); ptyalism (Slegel, Frank, Hosack); rubbing the head with mercurial ointment, small pox, etc. (Trincavalleus). Among the occasional causes, are wounds, laceration, and contusions of the tongue; the application of emetic to the organ, burns; while the most frequent is the action of acrid or acro-narcotic substances on the tongue. Such effects have been produced by the juice of the daphne mezereon, by tobacco leaves, and by the sting of wasps, bees, and other insects. Dupont relates a case of a young man who, for a wager, took two bites of a toad, and was speedily attacked with severe glossitis. [Vide *British and Foreign Medico-Chirurgical Review*, July 1850, p. 54.]

The treatment of this disease is generally simple, consisting of venesection, scarification of the tongue, or incisions made parallel to the raphe, the introduction of ice into the mouth, and, if the patient can swallow, the administration of cathartics or laxatives. Emetics are highly commended by Dupont, Ruggi, Wettingius, and others, in the earlier stages.

OBSTETRICS.

PARTIAL PARALYSIS IN THE LATTER MONTHS OF PREGNANCY.

At a meeting of the Edinburgh Obstetrical Society, Dr. GRAHAM WEIR shortly detailed the history of two cases of paralysis of the sensitive nerves of the fingers, coming on in the latter months of pregnancy. In the first, the disease came on gradually at the ninth month; the fore-finger and thumb of the right hand were the parts affected. So complete was the palsy, that the patient was unable to feel a needle between the fingers. Immediately after delivery, sensation returned, and had continued perfect ever since. In the second case, the disease came on about the eighth month of pregnancy; the

parts affected were the thumb and two first fingers. The peculiarity in this case was, that sensation was not absent, but perverted. A needle placed between the fingers felt by the patient as if it were (to use her own words) of the thickness of a common fire-poker. In this case, recovery was not so immediate as in the former. After delivery, she suffered intense intermittent pain in the middle finger, the paroxysms being synchronous with the after-pains. This state lasted for four days; it then gradually subsided, and she became able to use the hand as formerly.

Several similar cases were mentioned by other members of the Society. [*Monthly Journal of Medical Science*, May 1851.]

PROFESSOR SIMPSON ON FISSURING AND LACERATION OF THE STRUCTURES OF THE PERINEUM AND CERVIX UTERI IN NATURAL LABOUR.

As the result of a long series of observations, Dr. Simpson has drawn the following conclusions:—

I. Fissuring and laceration of the cervix uteri and perineum are not, as is generally conceived, rare lesions during labour; on the contrary, they are very common occurrences; especially in primiparous labours.

II. These lesions are not, as has been often alleged, necessarily the result of mismanagement, but they occur constantly in practice, despite every modification of management; and in cases also in which no kind of management has been adopted.

III. Evidence of the great frequency of laceration of the anterior structures of the perineum is furnished by,—1. Almost every careful autopsy of women after delivery, whether assisted or not assisted during their labour; 2. By the contracted or shortened state in which the perineum is almost always found, when vaginal examinations are made for uterine disease in women who have borne a family; and, 3. By the fissuring or laceration itself being usually traceable (under careful tactile examination), particularly in first labours, when that examination is instituted in the interval of pain, immediately before the passage of the child's head, or after its birth.

IV. Lacerations of the perineum may be often felt beginning in the form of slight roughish rents or fissures upon the mucous surface of the perineum, and these may extend either backwards or forwards; and if they extend forwards, they at last run over the edge of the perineum, and along its cutaneous surface; the mucous and cutaneous structures of the perineum being thus sometimes lacerated, while its middle, cellular, and fascial tissues are comparatively entire, or at least not so deeply and extensively injured.

V. The proper management and support of the perineum no doubt modifies and diminishes this form of perineal lesion; but it fails far more frequently than is generally supposed in entirely preventing it.

VI. The evidence of the frequency of fissuring of the os and of the lower or vaginal portion of the cervix uteri is the same in character, and consists principally—1. In the frequency with which slight laceration of the edges of the os, and of the mucous and middle coat of the cervix, is detected in autopsies after natural labours, and particularly with first children; and, 2. In the permanent marks of its previous occurrence, as exhibited in those cicatrices and irregularities of the cervix uteri, which anatomists have long empirically, but correctly, laid down as proofs that they, in whose bodies they are found, have been previously mothers.

VII. Fissures and lacerations of the vaginal portion of the cervix uteri not unfrequently occur to a very considerable extent, in cases in which the tissues of the cervix have been rendered rigid by previous inflammation, by carcinoma, or by other morbid causes; and, in such cases, this fissuring or laceration, if limited to the lower or vaginal portion of the cervix, seems to be accompanied with little or no danger. [*Monthly Journal of Medical Science*, May 1851.]

MATERIA MEDICA AND PHARMACY.

MERCURIAL INHALATION BY SMOKING CHEROOTS AND CIGARETTES.

The inhalation of various medicines along with the smoke of cigars or cheroots, has been more than once recommended in this JOURNAL. In prescribing the method, the physician must take care that the patient be clearly told that the smoke is to be drawn into the lungs ; and the mode of doing this must be properly explained to him.

MR. J. H. RICHARDS, of Philadelphia, writes as follows in the *Medical Examiner* for June 1851 —"I have been informed by a gentleman of intelligence, who has resided for a long time in China and Manilla, that mercury, which is there regarded as a specific in the severe forms of hepatic disorder incident to the climate (and leading to its employment to an extent that would be considered extravagant by Europeans), is constantly exhibited in the following novel and peculiar manner. The black oxide is introduced into the Manilla cheroots, and, being inhaled, is thus presented in the form of vapour to the most absorbent surface in the body. The only difficulty is the inability of the physician to regulate the amount of effect. By intelligence on the part of the patient, however, this is obviated ; whereas its advantages are such as to obtain for it the preference in many cases over the ordinary method. *It certainly is a speedy plan of producing salivation.* I mention this fact, as it is interesting in itself, and may suggest other applications of the same principle." (p. 369.)

Would this plan be admissible in pneumonia ? Perhaps not. In syphilis, iritis, peritonitis, etc., we would urge upon our readers to make trial of this method of inhalation. Nothing can be simpler than the manufacture of mercurial cigarettes with the little machine in common use by smokers ; mingling the proper quantity of the black oxide, with some light and easily smoked tobacco. It may happen, however, that the nicotine is objectionable. In such cases, then, we would recommend the tobacco to be freed from this principle by maceration in acidulated water. It is right to state, that the smoking of mercurialised cigars is by no means, as Mr. Richards supposes, a novelty in the practice of medicine. The following formula was given many years ago by Bernard :—"*Cigarettes Mercurielles.* Bichloride of mercury, 4 centigrammes ; extract of opium, 2 centigrammes ; tobacco deprived of its nicotine, 2 grammes. Deprive the tobacco leaves of their nicotine by several macerations in acidulated water, wash them in fresh spring water, then dry them, and cut them up for making into paper cigarettes." These cigarettes are recommended *(L'Officine, par Dorvault)* in syphilitic ulcerations of the throat, mouth, and nose.

SAFETY OF ACETATE OF LEAD AS A MEDICINE.

MR. W. SWEETING, in the *Provincial Medical and Surgical Journal*, June 11, 1851, combats, as a vulgar prejudice, the assertion that acetate of lead is an active acrid poison. He expresses his belief, that no well-authenticated case is on record, wherein death has followed the administration of it, and he alludes to several cases recorded by Dr. Christison and Professor Taylor, in which as much as an ounce, and even an ounce and a half, were swallowed, and yet all the patients recovered. Mr. Sweeting then describes some cases of uterine hæmorrhage, bloody diarrhœa, etc., in which it has proved of the utmost value as a sedative astringent, given in five-grain doses, for many consecutive hours. One patient took as much as 576 grains of the acetate in sixteen consecutive days. Van Swieten gave sixty grains daily for ten days, and Mr. Daniel ten grains three times a-day, without any unpleasant effect, except a slight colic after the fourth dose. The largest dose given by

Mr. Sweeting was twenty grains ; and in his experience of this medicine for fourteen years, he has never met in a single instance the ill effects usually ascribed to it. Being extremely liable to decomposition, acetate of lead should always be given *simply dissolved in distilled water*. These decompositions may have been the occasion of much mischief ; and hence even opium is inadmissible. Care should also be taken to have the acetate very pure. In allusion to a fatal case, occurring in the person of a child, who took in small divided doses continuously given in the space of *nine weeks, thirty-three grains*, Mr. S. suggests the inquiry, whether minute doses may not have a tendency to accumulate in the system and produce its specific effects, whilst larger ones are carried out readily, and he adds,— " I more than half suspect that where acetate of lead, internally administered, has occasioned dangerous symptoms, the preparation has not been free from oxidation. It is the *oxide* which is injurious, and which, mixed with the cider in Devonshire, gave a cognomen to the colic prevalent in that county. The same obtains in painters' colic, from swallowing, owing to neglect of ablution, particles of litharge and red lead."

LIEBIG'S BEEF-TEA AND EXTRACTUM CARNIS.

Dr. William Beneke in the *Lancet* of January 4, 1851, strongly recommends—and, we think, for very sufficient reasons—Liebig's Beef-tea, when the patient requires to have administered, in small bulk, a good animal nitrogenous food. He quotes the following formula for preparing it, as given by Liebig :—" One pound of lean beef, free of fat, and separated from the bones, in the finely chopped state in which it is used for beef sausages, or mince-meat, is uniformly mixed with its own weight of cold water, slowly heated to boiling, and the liquid, after boiling briskly for a minute or two, is strained through a towel, from the coagulated albumen and fibrine, now become hard and horny. Thus we obtain an equal weight of the most aromatic soup of such strength, as cannot be obtained even by boiling for hours from a piece of flesh. When mixed with salt, and the other usual additions by which soup is usually seasoned, and tinged somewhat darker, by means of roasted onions or burnt sugar, it forms the very best soup which can in any way be prepared from one pound of flesh."

When beef-tea prepared in this way is evaporated in a water-bath, and cooled afterwards, it forms a brownish yellow extract, to which has been given the name of Extractum Carnis. In accurately following the above-described method of preparing the beef-tea, the quantity obtained out of six pounds of meat may be evaporated to three ounces, and those three ounces, after having cooled, form the " extractum carnis". One ounce of extractum carnis is therefore equal to thirty-two ounces of meat, whence it can easily be calculated how much of it is required for providing a patient daily with the constituent parts of three, four, five, six, or more ounces of meat. Dr. Beneke desires to see the extractum carnis introduced into the Pharmacopœia ; and he mentions, on the authority of Dr. Von Breslau of Munich, that it is to be received into the *Pharmacopœia Bavariæ*. It is stated not to undergo any change for years, when kept in air-tight porcelain vessels.

REPORTS OF SOCIETIES.

SURGICAL SOCIETY OF IRELAND.

January 25, 1851.

Dr. Jacob in the Chair.

Case of Warty Ulceration of the Lower Extremity successfully treated. By Dr. Stapleton. M. W., labourer, aged 60, was admitted into Jervis Street Hospital, April 29, 1850, for extensive ulceration of the right leg, which he said had been pronounced incurable by several surgeons. Many years ago, whilst working in a quarry, his shin had been cut by the falling of a piece of stone. It was long before it healed, and remained healed but for a short period, when it again broke out, and continued gradually getting worse to the present time. The ulcer now measured upwards of three inches and a half in length, and seven inches and a half in breadth. Its centre seemed deeply excavated, but was not so in reality. It was covered with a dirty-yellowish substance, through which, on the inner side of the leg, there appeared several whitish warty eminences. There was a copious, thin, and very offensive discharge from its surface. The superior margin of the ulcer resembled that of a chronic ulcer of long standing. The inferior margin was surrounded by a wall of warty structure, in the widest part one inch and a half, and was fined down to an almost single wart on either side. A probe did not pass deeply by pressure on the ulcerated surface, nor through the warts on the lower margin. The patient's health was much impaired, his complexion was sallow, his appetite bad, and his sleep disturbed. The ulcer was treated by rest and position of the limb ; its surface was covered with lint steeped in lotions, varied as its appearance required ; strips of bandages were then applied, after the manner of a many-tailed bandage, and over all was a roller kept moistened by water. The ulcer was healed on the sixty-eighth day. The warts had now entirely disappeared. The constitutional treatment was mercurial and tonic.

Observations on a peculiar type of nervous fever, characterized by a functional excitement of the cerebro-spinal nervous centres. By Dr. McDowell. This fever is especially characterized by the existence of symptoms which denote a *functional excitement of the cerebral and spinal nervous centres*, especially of the latter. In most instances it attacks the young, having been met with in a large proportion of cases between the ages of twelve and eighteen. In no instance did the disease occur after the age of twenty-six, and, as far as was observed, one sex is not more predisposed to its influences than another. Dr. McDowell first met with cases of this affection in the latter part of the year 1846, the year in which cerebro-spinal arachnitis (or rather meningitis) appeared in this country epidemically to a limited extent ; and he had little doubt but that some examples of this peculiar fever occurring at that period were regarded as cases of meningitis.

Between the symptoms which attend this *functional* affection of the spinal cord, and those which usher in inflammation of its membraneous coverings, there will constantly be found the strongest resemblance. When the one affection is unusually prevalent, there is a more than ordinary tendency to the development of the other. In 1846, when inflammations of the membranes of the spinal cord were frequent, and in many instances terminated fatally, it was observed, that the symptoms of excitement of the spinal cord frequently became developed in the progress of cases of ordinary continued fever, without in any way tending to produce an unfavourable result ; and again, during the last few months, since fever complicated by the functional

affection of the medulla spinalis has become epidemic, there have been more cases of acute meningitis and myelitis than usual. It is therefore probable, that the epidemic influences which produce the one affection, have a tendency to induce the development of the other.

Since the year 1846, Dr. McDowell had been accustomed to meet with a few occasional examples of the disease, but during the last six months it had much increased.

In the *mode of invasion* of this disease, there is little variety to be observed. It is invariably ushered in by the usual symptoms of fever of varying intensity, but generally accompanied by more than the usual amount of *gastric irritability;* sometimes the vomiting is very distressing, and occasionally, but in a few instances only, the disease has been accompanied from the outset by marked depression and prostration of the vital powers, which amounted in one case to collapse, like that of cholera, and further resembled that disease in being attended by watery stools and vomiting of a whitish serous-like fluid. About the third or fourth day, in the majority of instances, a pecular group of symptoms become developed, which stamp this affection as different from any of the more ordinary forms of fever. These symptoms, which depend upon a *functional excitement* or *erethism* of the brain and spinal cord, may be thus enumerated.

1. *Exalted sensibility* of the cutaneous surface generally, but most highly developed in the integuments of the head, back of the neck, abdomen, and calves of the legs. 2. Severe *pains* shooting throughout different parts of the body, and most generally referred to the region of the spine, occiput, shoulders, loins, and lower limbs. 3. *Tenderness on pressure* over some portion *of the spinal column.* Sometimes the whole spine is intolerant of pressure, but more generally isolated points alone are thus acutely sensitive. The cervical portion of the column seems to be the one most generally thus affected. 4. *Rigidity of the muscles of the nape of the neck*, especially of the sterno-mastoid and trapezius muscles, which limits the motion of flexion of the head, and in some instances completely prevents it. Sometimes the erector muscles of the spine are similarly excited. 5. In many of these cases, there is *the peculiar expression of trismus*, particularly in the upper half of the face, the forehead being thrown into transverse wrinkles, and the eyes having the characteristic peering expression of that affection. 6. This fever is very often accompanied by *headache*, which is *referred to the occipital region;* or when more diffused, is most keenly felt in the posterior region of the head. 7. There is always present more or less of *epigastric tenderness*, sometimes the whole of the abdomen is intolerant of pressure, but this belongs in all probability to the augmented sensibility of the surface generally, and has its seat in the integument. This symptom, by its undue prominence, may give rise to the suspicion that peritonitis exists, and so mislead the practitioner. This is illustrated by one of the cases to be presently mentioned.

In none of these cases were there any indications of congestion of the intestinal or bronchial mucous membranes, but very often a short hacking cough with hurried breathing has been present, resembling that with which practitioners are familiar in cases of hysteria, and to be referred to the same source—viz., to functional excitement of the spinal cord.

In addition, there are the symptoms of ordinary continued fever, a pungently hot skin, and a greatly accelerated circulation, the pulse ranging from 120 to 140 (in one case mounting up to 150), *but without the secretions being much vitiated*, the tongue continuing moist, the bowels acting naturally, and the urine not being sensibly altered in any of its qualities. In some cases there has been slight delirium at night, but in all of them there was observed an *irritability of disposition* and an amount of *anxiety* and of *restlessness* quite disproportional to the other symptoms, but which plainly indicated a peculiar disturbance of the sensorium.

As to the *duration* of the disease, it was observed in a large number of the cases that convalescence occurred on the eighth day. In others the disease lasted for ten days, and in a few instances only was convalescence longer postponed. In some the occurrence of perspiration marked the crisis of the disease. In one case jaundice proved critical, whilst in the greater number no marked crisis occurred, but a rapid subsidence of the disturbance of the nervous centres preceded by a short interval the disappearance of fever.

In no one instance did this fever terminate fatally.

In some cases, the fever was of a low adynamic character, and in these a tardy convalescence resulted, and in one instance cancrum oris supervened, but the child ultimately recovered.

Relapses did not belong to this type of fever, in which it was contrasted with a bilious form of fever latterly very prevalent, in which relapses were extremely common.

Lastly, instead of constituting a distinct type of fever, the symptoms of spinal irritation were observed to occur in the course of maculated typhus or of bilious relapsing fever.

The following cases, which are very briefly described, will illustrate many of the preceding remarks :—

Case I. Jane Fox, aged 22, admitted August 10th (ill two days), labouring under the symptoms of ordinary continued fever. Two days subsequently (the fourth of her illness), she complained of severe pains all over her body, aggravated either by pressure or by motion. The seat of this *exalted sensibility* was the skin; the head was rigid; the muscles of the neck hard and contracted; the head could be but very slightly flexed, and the attempt gave great pain; there was a constant pain in the occipital region, and a diffused tenderness of the scalp; the nape of the neck and the calves of the legs were especially tender to the touch.

13th *(fifth day)*. Patient is almost unable to move from extreme "soreness all over her"; she is even unwilling to allow herself to be touched by the nurse; there is much pain in the back complained of; pulse 130; tongue moist and furred.

14th. Diminution of all these symptoms. 16th (*eighth day*). Convalescent.

In the next case, the disease began with great violence, and presented at first many of the symptoms of cholera.

Case II. Anne Collins, aged 9, admitted August 9th into Dr. Corrigan's ward: *ill twenty-four hours.* On admission, there was frequent vomiting and purging; the discharges from the bowels were thin and serous, and collapse very quickly supervened. Counter-irritation, external warmth, and stimulants were freely employed. The vomiting and purging ceased, and the *third day* reaction was fully established, and slight fever was present. On the *fifth day* exalted sensibility of the surface was present; the legs were especially tender to the touch; the head was rigid, and could not be bent; and the trapezius and sternomastoid muscles were contracted and tender; the little patient was peevish, restless, and irritable to the greatest degree; the pulse was extremely rapid, and the surface of the body very hot. *Eighth day*, convalescent.

In this case, extreme debility remained, with remarkable pallor of the face; and, after a few days, gangrenous sloughing of the gums occurred. The disease, however, was arrested before the cheek became implicated; and, after a tedious illness, the child ultimately recovered.

Case III. Michael Maguire, aged 15, admitted Sept 18th. On admission, there was much fever present, although the boy was only ill a *few hours.* On the *third day*, frequent vomiting was present, with excessive tenderness of the epigastrium. There was complaint made of severe pain in the occiput and in the nape of the neck, the muscles of which were rigidly contracted. The patient complained of flying pains all over him, and there was tenderness to the touch of the nape and of the *right* leg. The face had much of

the aspect of tetanus. There was a singular amount of anxiety and of despondency present. The breathing was hurried and hysterical.

Fifth day. There was little or no improvement; the scalp was very tender to the touch, and the face still wore the tetanoid expression; there had been little sleep, with delirium, but there was no intolerance of light. The circulation was greatly hurried, and the skin was very hot; but the tongue was moist, and the bowels acted naturally.

Sixth day. The patient had slept well, and was better in every respect.

Eighth day. Skin cool and perspiring; no pains anywhere; convalescent.

Case iv. Anne Gahan, aged 24, admitted October 2nd; her illness began with shiverings, followed after two days by vomiting and shooting pains throughout the body. The day of admission was the sixth of her illness; there was much fever present; the skin was pungently hot, and the pulse beat 130 in the minute. There was great pain in the shoulders, back of the head, and spine, aggravated by the least motion; the head was stiff, and the muscles of the nape rigid. The patient screamed loudly when the least pressure was made over the dorsal vertebræ. The legs also were acutely sensitive when touched. The upper part of the face presented the appearances of trismus, the forehead was wrinkled transversely, and the eyes were more than half closed. There was no delirium or subsultus tendinum. The tongue was moist and furred. The slightest pressure on the epigastrium was intolerable, and the abdomen generally was tender when pressed on.

Seventh day. The pain was more localized in the occipital region, but the patient felt much relieved and could move more freely; the pulse was reduced to 100. The conjunctivæ were yellowish, and the epigastrium was yet tender.

Eighth day. Pulse 80; patient is deeply jaundiced, but feels quite free from pain, and there is no longer any over-sensitiveness of the surface; debility.

Ninth day. Convalescence established; recovered rapidly.

Case v. In this case the excessive sensibility of the abdomen with fever caused peritonitis to be suspected. Rose Clinton, aged 8, admitted November 20th; ill three days; for five days after admission the symptoms of mild continued fever were present. On the eighth day of her illness (Nov. 25th) she complained greatly of pain in her abdomen, the surface of which was extremely intolerant of pressure. She lay on her back, and was unwilling to move or to allow herself to be moved. The pulse was 122 and small, and much fever was present. The clinical clerk on duty suspecting peritonitis, leeched the abdomen, and administered mercury. On the next day (the ninth of her illness) the true nature of the case was manifest, for the signs of spinal irritation had become fully developed. There was pain in the back of the head and neck. Rigidity of the trapezius and sterno-mastoid muscles with consequent inability to flex the head fully. There was also "exalted sensibility" of the cutaneous surface generally to a remarkable extent. The abdomen was still tender, but no longer predominantly so. Her face was expressive of pain and suffering.

Thirteenth day. Convalescence established.

Case vi. J. Gallagher, aged 14, admitted Nov. 2nd; ill four days. He attributed his illness to over fatigue from excessive walking. When admitted he laboured under fever with excitement of the spinal nervous centre. The pulse was 120; the skin was pungently hot; the epigastrium was extremely tender; there was excessive "soreness" of the cutaneous surface, especially of the legs; the muscles of the nucha were rigid, preventing the head from being flexed; the face bore the expression of trismus in a marked degree; the breathing was very hurried, and the patient had a short frequent ringing cough, unaccompanied by any expectoration. Careful examination failed to discover any evidences of thoracic disease.

Seventh day. There was a critical perspiration; from that period convalescence was established.

The following were Dr. M'Dowell's conclusions.

1. That there is a type of fever characterized and accompanied by a functional affection of the cerebro-spinal nervous system.

2. That the predominance of "spinal irritation" distinguishes this affection from the ordinary forms of fever in which "cerebral symptoms" are of more common occurrence.

3. That the symptoms which denote excitement of the spinal cord are the following :—morbid exaltation of the cutaneous sensibility—pains along the course of the spinal nerves—spinal tenderness—rigidity of the muscles of the nape of the neck—the expression of trismus—neuralgic headache, and headache chiefly referred to the occipital region—gastric irritation, and sometimes irritation of the pulmonic branches of the vagus nerve.

4. That these symptoms present the strongest contrast to those of typhus, in which we generally meet with a tendency to stupor, listlessness, deafness, and other evidences of blunted sensibility.

5. That the disease hitherto has proved mild, tending to recovery on or about the eighth day ; that relapses do not occur ; and that typhoid symptoms never are observed.

6. That instead of constituting a distinct type of fever, these signs of spinal irritation may occur in the progress of other fevers, and without tending to an unfavourable result.

7. That this affection is liable to be confounded with hysteria, peritonitis, gastritis, or gastric fever, or with cerebro-spinal meningitis.

8. That the combined symptoms of headache and epigastric tenderness which in other fevers are best treated by local depletion over the stomach, will in these cases be most effectually relieved by the application of leeches to the posterior region of the head ; and for this reason, that in the type of fever under consideration, the gastric irritability and epigastric tenderness depend upon a functional lesion of innervation, whilst in other instances it is the brain which sympathizes with a deranged gastro-intestinal mucous membrane.

Observations on the Statistics of Venereal Sores in the 57th Regiment. By A. C. Gordon, M.D. During the year, from 1st April 1849, to 31st March 1850, the regiment having been very much detached, the average strength at head quarters was only 408 ; yet out of this number the aggregate period during which such of the men as were affected with local venereal sores were in hospital amounted to 1210 days, making a loss to the state on this account of work equal in value to £65 10*s.* 3*d.* The sick list on account of venereal diseases was *below* rather than *above* the general average throughout Ireland ; but supposing, that for every 500 soldiers there is a loss to the state, in consequence of the prevalence of local venereal sores, of the work of 1210 days, then as the army in Ireland amounts, at the very smallest computation, to 24,000 men, we have an annual cost to the state of £3,120 on account of this one form of disease.

During the year ending 31st March 1850, the following numbers were treated on account of venereal diseases in the head-quarter hospital out of an average strength of 408—viz. :

Species of Venereal Disease.	Number admitted.	No. of days in hospital.	Amount of Soldiers' pay.
			£ *s.* *d.*
Syphilis primitiva	53	1210	65 : 10 : 3
——— consecutiva	13	462	25 : 5 : 11
Ulcers on penis non-syphilitic	2	43	2 : 3 : 7
Bubo simplex	10	281	15 : 4 : 5
Gonnorrhœa	32	481	26 : 1 : 1
Hernia humoralis	3	42	2 : 5 : 7
Total	113	2519	136 : 10 : 9

The forms of venereal ulcers that had been observed to prevail since the return of the regiment from foreign service, on 13th Sept. 1846, to 31st March 1850, may be reduced to six.

Of these, the first, or "Hunterian chancre", is a round excavated ulcer with hard base, edges a little prominent, and I would add, its interior having, when closely examined, a somewhat reticulated or honey-combed appearance. The second is a superficial ulcer without hardness, with elevated edges, whitish or reddish surface, and no appearance of granulations. The third is also a superficial ulcer, destitute of hardness, but its centre is considerably elevated—generally of a bright red colour, and fungous appearance. The fourth is mere excoriations of the glans and prepuce, attended by more or less purulent discharge. The fifth is the phagedenic sore, having a corroding appearance, without hardness or granulation, and increasing rapidly in size. The sixth is the sloughing ulcer, which first commences in a small black spot, after which sloughing extends from this point to an indefinite depth below the surface.

There are cases in which the local ulcer assumes so anomalous an appearance as to render it a difficult matter to refer it with precision to either of the above classes; while again, it not unfrequently happens that one and the same ulcer may, during its continuance, manifest in succession the more essential characters of two or more of those just described.

The total number of admissions on account of the various forms of venereal ulcer, now briefly described, were, during the entire period, as follows :—viz., 55 of No. 1; 106 of No. 2; 20 of No. 3; 20 of No. 4; 11 of No. 5; 3 of No. 6; and 27 not definitely described; making in all an aggregate of 242 cases.

The greatest number of admissions took place during the first half year that the regiment was at home; 79 having occurred between the 13th of September 1846, and the 31st of March 1847, out of an average strength of 715. During the following year, on the contrary, the ratio of admissions was smaller than in any other corresponding period; 56 cases only having occurred in an average strength of 818. In the two succeeding years, the admissions on account of primary sores were, respectively, 54 and 53, in an average strength of 408.

Different forms of ulcer seemed to prevail at different stations occupied by the regiment previous to its arrival in Dublin; thus, during the few days that it was quartered at Chatham, three cases came under observation, and of these one was a *Hunterian* and one a *phagedenic* sore, the third being a simple superficial sore, such as is characterized as No. 2. At Canterbury and Dover, the first form of ulcer (Hunterian) constituted a little more than one-fifth of the admissions; at Windsor and Hull, about one-twelfth; while at Enniskillen, during the two years that the regiment remained there, this form of ulcer formed, in the first, one-third of the admissions; and in the second, one-fourth.

Of the 242 cases of primary sores that came under observation during the period referred to, 192 were treated without the constitutional employment of mercury; and of this number, six were followed by "secondaries", while of fifty cases in the treatment of which mercury was administered constitutionally, *secondaries* occurred in four. The only forms of primary ulcers that were followed by constitutional or secondary symptoms, were the first, or Hunterian, the second, or superficial, and the fifth, or phagedenic. Of the four cases of Hunterian chancre that were followed by secondaries, three had been treated without mercury, and one with mercury. Of the three first mentioned, the form of secondary affection was, in the first, "a vesicular eruption, and nocturnal pains in the limbs"; in the second, "red spots upon the skin, intermixed with small tubercles"; and in the third, which was complicated with phymosis, "condylomata" supervened. In the fourth case, which in the first instance had been treated with mercury, the secondary affection consisted in "aphthous sores in the mouth, and eruption", although of what precise nature did not distinctly appear.

Of the three cases of the second form of ulcer that were followed by "secondaries", all had been treated for the primary affection without mercury; one of these was complicated with gonorrhœa, and there was at the same time an incipient bubo in the left groin, which however terminated in resolution. In this instance, the particular secondary affection that supervened, was "a squamous eruption". The other two were uncomplicated, and in them the secondary affection was also "squamous eruption" in one; in the other, there was an eruption, but of what particular character is not stated.

On the three cases of phagedenic ulcer that were followed by "secondaries", mercury had previously been employed constitutionally in the treatment; and the characters of the secondary affection varied in all. Thus, in the first case, which was uncomplicated, the secondary disease was a "squamous eruption". In the second, which was also uncomplicated, the secondary disease consisted in "superficial ulcers of the tonsils, and a *pustular* eruption"; and in the third, the patient had shortly before been treated (without mercury) for an Hunterian chancre, which appears to have healed without any complication. On his readmission with phagenedic sore, there was an incipient bubo in the left groin, which however did not suppurate. Mercury was employed constitutionally, and the secondary disease that followed was "a *papular* eruption, and enlargement of the cervical glands."

In none of the cases where the local sores were subsequently followed by "secondaries", did suppurative bubo occur; for in the two cases complicated with enlargement of the inguinal glands, the inflammation terminated in resolution.

Of the 242 cases of local ulcer, treated in the regimental hospital, buboes occurred in 68; and of this number, the complication was in the right groin in 22; in the left, in 33; in both sides, in 7; and in 6 cases, the precise side affected is not stated. Of the 192 cases treated without mercury, buboes occurred in 53; being in the proportion of 3·62; and 6, as has already been stated, were followed by "secondaries", being 1 in 32. Of the 50 treated with mercury, bubo occurred in 15, or 1 in $3\frac{1}{3}$; and "secondaries" supervened in 4; being 1 in $12\frac{1}{2}$. The average number of days that the 10 cases of constitutional symptoms were in hospital was 24; the most obstinate one having been 55, and the slightest only 3.

March 8, 1851.

Dr. Jacob in the Chair.

Case of Secondary Cancerous and Encephaloid Disease. By Mr. Banon. Case. On the 19th of May, 1849, P. F., labourer, aged 40, was admitted into hospital. He had a cancerous wart on the under lip on the right side, presenting the characters of this disease in an early stage. He first observed it a few weeks previously, and attributed it to smoking. His general health was good, and the glands in the infra-maxillary region and elsewhere were not enlarged; it was hence considered to be a case favourable for operation. In seven days afterwards the man was discharged apparently cured, and with a very healthy-looking cicatrix.

In January following (a period of about eight months) there was, *for the first time*, observable a small hard swelling at the angle of the jaw on the right side; and the patient was again admitted to hospital on the 31st of January, 1850.

The swelling increased, and an abscess soon formed, which at first discharged healthy pus, but in a little time gave rise to a deep unhealthy-looking excavation. For a time the disease would appear to be arrested, but would soon break out with renewed violence. The ulcerative process, combined with sloughing, at length destroyed most of the soft parts on the right side of the neck. An immense cavity existed, at the bottom of which the great vessels of the neck could be distinctly seen. The danger of a fatal and

sudden hæmorrhage was now imminent, but in a little time small granulations sprung up, by which the denuded vessels were covered, and the danger of hæmorrhage obviated. An excessively copious ichorous discharge took place constantly, and the patient's strength rapidly gave way. He, however, very seldom complained of pain. He became much attenuated, and died on the 21st of last September. About a month previous to his death, a tumour showed itself in the opposite side of the neck, which was evidently soft cancer or medullary sarcoma. The submaxillary and part of the parotid glands were at this time completely dissected, and laid bare by the ulceration. Their function was nevertheless carried on without impairment. The *straw-coloured skin* mentioned by French authors was at this period well marked in the case of the patient.

Remarks. It was worthy of remark, that the disease should have remained so long quiescent. From the time of the operation in May 1849, until January 1850, no sign of a return of the disease could be observed; and if we look on this as a second occurrence of cancer, we must suppose that the poison had been conveyed from the cancerous wart to one of the submaxillary glands previous to the operation, and there remained latent for eight months. We should, in even the most favourable cases of carcinoma of the lip, as well as elsewhere, make a most guarded prognosis as to the curative effects of operations. The disease may have originated a second time in the submaxillary region, and the last affection may have had no direct connexion with the first. The occurrence of the cerebriform cancer in the opposite side of the neck in the latter stage, was a remarkable evidence of the close connexion between the different forms of cancer. No examination of the internal organs could be made.

March 22, 1851.

Mr. Trant in the Chair.

Case of Punctured Wound in the Abdomen: Recovery. By H. C. Field, M.D.

Case. On the 22nd of November, a gentleman, while sitting at dinner, in a fit of irritation, exclaimed that he was tired of his life, and immediately stabbed himself with a carving knife. On entering his room, Dr. Field perceived the floor covered with blood, and the patient extended on a sofa in a corner of it, apparently lifeless. He could not feel any pulse. He immediately obliged him, with great difficulty, to swallow some brandy. Blood was flowing profusely from a wound in his abdomen, to the left side of, and near to, the umbilicus. The blood, which was of a dark colour, flowed freely in one continued stream, so as to threaten immediate death. Having failed to suppress the hæmorrhage by firm compress and bandage, Dr. Field introduced to the bottom of the wound a dossil of lint, the end being kept outside, and applied firmly over it a graduated compress and a broad bandage. This arrested the further flow of blood, and a cordial draught, with forty drops of laudanum, was then administered. A feeble tremulous pulse at the wrist could now be felt, but the patient appeared in a sort of faint. He was bathed in a cold sweat, his extremities lay still and motionless, he vomited at intervals, and his urine and bloody fæces passed unconsciously, and his respiration was slow and laboured. In this state he remained for seven hours. About this time the vital powers showed a disposition to reaction. He expressed, in a few broken accents, the general uneasiness, and complained of pain and numbness in the lower extremities, particularly in the left; this, with restlessness, disturbed him during the remainder of the night, which was passed without any sleep, notwithstanding an anodyne.

Nov. 23rd. A medical attendant remained with him during the night. There was no recurrence of hæmorrhage; he still appeared in a state of extreme debility, and felt great nausea, which occasionally increased to hic-

cough and vomiting; he also complained of numbness and pain, extending down the left limb to the foot; there was slight tenderness about the wound on pressure; pulse 120, feeble, and irregular. To relieve the state of the stomach, as well as to allay the general irritability, and ensure perfect rest, Dr. Field directed the saline effervescing mixture every four hours, with fifteen drops of laudanum, also fomentations to the abdomen. *Evening.* He still complained of pain and numbness in the thigh and leg; the abdomen was more tender; there was thirst; pulse 110 and feeble; tongue white and furred; skin hot and dry. He was ordered to continue the draughts at longer intervals, also the use of ice, and the fomentations every four hours.

Nov. 24th. He had some quiet and refreshing sleep during the night, and felt himself relieved; had had two stools, each containing a large quantity of dark clotted *blood;* pain and numbness in the left limb not so troublesome; abdomen tender on pressure. Ordered the fomentations to be repeated.

Nov. 25th. He had several evacuations, each containing a quantity of clotted blood; fever much less; pulse 90; tongue foul; pain and numbness in the extremity still distressed him; there was no pain about the wound; the dressings came away, when a quantity of *fæculent* matter, mixed with blood and some pus, was discharged.

Nov. 27th. The wound discharged healthy pus unmixed with fæculent matter; he was free from fever.

Dec. 8th. He attempted to stand, but the left leg yielded beneath his weight.

Jan. 2nd. His health and strength was considerably improved; for some time the left extremity was nearly paralytic, though frequently attacked with paroxysms of pain and numbness.

Peculiar Injury of the Ankle-Joint. By Dr. Power. The patient, aged 28, a sweep, was admitted under his care into Jervis-street Hospital, on the 12th of November, 1850, suffering from a recent injury to his left lower limb. The foot was rotated considerably inwards; the outer edge of the foot was directed outwards and downwards, so that when the patient attempted to stand, this part of the foot pressed against the ground. The inner edge of the foot looked upwards and inwards. The dorsum looked upwards and outwards; and the sole of the foot looked obliquely towards the foot of the opposite side. The *external malleolus* was more prominent than natural; and instead of the ordinary well-marked sulcus underneath it, there existed a firm ridge of bone, which accompanied the motions of the foot, and disappeared when the latter was restored to its natural condition. The measurement from the lowest point of the external malleolus to the outer edge of the foot, was half an inch greater than in the natural position. The internal malleolus appeared buried in an angle formed between the foot and leg; still it could be distinctly felt. The inner edge of the foot appeared drawn up towards this malleolus, and these were nearer to each other by half an inch than the ordinary position of the limb. In a word, the foot presented very much the appearance of ordinary "*talipes varus*". The toes were rather more elevated than usual. The circumference of the limb, corresponding to the two malleoli, was found to be fully one inch more than the opposite side, or than the same limb when the patient left the hospital. A good deal of serous effusion was present both in the foot and leg. The finger could be made to sink into a longitudinal groove between the tibia and fibula. The latter bone could be traced in its entire length, without any solution of continuity; no crepitus whatever could be detected. By flexing the leg upon the thigh, and then with one hand laying hold of the heel, whilst with the other he grasped the anterior part of the foot, and by drawing the foot downwards from the leg, rotating it outwards at the same time, Dr. Power restored the foot to its natural position with the greatest ease; and this movement was attended with very little pain to the patient. When the foot was so

replaced, it was clearly ascertained that there existed no fracture of the tibia in any portion of its length.

The patient related the following history of the manner in which the accident was produced. He stated that he had been in company with some persons of his own calling, that they were intoxicated, and had quarrelled. One of them laid hold upon the patient's leg, placed the inside of it in front of his own knee, and then with both hands tried to break it, as he would "a stick or a turf".

This was an accident the reverse of that described by Mr. Pott, unaccompanied by any fracture whatsoever. Dr. Field considered the case an example of *diastasis*, or separation between the tibia and fibula at their inferior articulation. The forcible rotation of the foot inwards (whilst at the same moment the inner malleolus was forcibly pressed against by the knee of the person inflicting the injury) would be most likely to be accompanied by such a displacement outwards of the astragalus as that, in following the motions of the foot, the external surface of this bone would be made to press against the corresponding articulating surface of the fibula with considerable force. The violence being still continued, the fibula must either give way, or the external lateral ligament be torn ; but, as has been already stated, the fibula remained entire ; the great probability was, therefore, that the external lateral ligament was ruptured, and not only so, but from the fact of the fibula being separated from the tibia, either the strong interosseous structure connecting these bones inferiorly must have been ruptured also, or a small portion of either of them must have been broken off. But of the existence of any such fracture there was no evidence. Hence the interosseous structures inferiorly must have been torn, and in this manner the fibula became disconnected from the tibia. The mortice for the reception of the astragalus thus became widened, and this latter bone could be moved with comparative freedom in its socket. It was more than probable that this same violent turning of the foot inwards forcibly stretched the peroneus brevis and longus ; and these muscles being thus prevented from exerting their contractile powers, the foot was left to the uncontrolled action of the muscles at the inside of the leg, thus giving the peculiar direction to the sole of the foot. By proper manipulation, the foot was easily reduced to its natural position, but when left to itself it was drawn back again to the abnormal condition.

The apparatus applied was that recommended by Dupuytren for fracture of the lower extremity of the fibula, instead with the splint applied to the outside of the leg. The thick extremity of the pad was made to rest against the lower part of the external malleolus. The upper portion of the splint and pad having been secured to the leg by the circular bandage, the luxation was reduced ; and the foot having been rotated outwards, so that the external edge was firmly drawn towards the splint, it was made fast in this situation.

The patient continued in hospital till the 13th of December, being a period of one month. At this date he left the hospital, but was not able to move about without suffering and insecurity. He was readmitted therefore upon the 19th of December, and again subjected to the same mode of treatment. On the 7th of January following, he was discharged cured, and continued to enjoy the free and perfect use of the limb.

Case of Polypus Uteri. By R. Johns, M.D. This was a specimen of the channelled polypus, described by Dr. Oldham, at an early stage of development. Dr. Johns differed from Dr. Oldham, who described the channels as being placed on the internal surface of the polypus. He believed that these cavities belonged more to the external than the internal surface of the polypus. The patient was a lady, aged 39. Dr. Johns removed the polypus by ligature and excision ; and the patient had continued well.

New Instrument for Cupping the Uterus. By T. R. Mitchell, M.D Two instruments were employed : the one, an exhausting syringe with a cup

at its extremity to hold the blood (this instrument is about fourteen inches long, and is furnished with a tube to admit the air into the cup at will, and by that means to overcome the exhaustion, a matter of much moment, as in the application of the instrument it is occasionally necessary to remove it before the exhaustion has ceased) ; the other instrument is a scarificator, of the same length, having three lancets set on a revolving pin, capable of being set and discharged at the distal end of the instrument. Both instruments are straight, and are something less than the circumference of a shilling in diameter, to permit their passage through a speculum. The patient having been brought before a good light, and placed upon her left side, the speculum is introduced, and the neck of the uterus brought into view, all adhering mucus being previously removed, the exhausting syringe is applied and the part made tumid by exhaustion ; the scarificator is then used, and if a large quantity of blood is required, the incisions may be crossed. This is effected without any pain to the patient ; the exhausting syringe can then be used as often as necessary, and as much blood taken away as the operator may wish ; no dressing of any kind is required.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

The Nineteenth Anniversary Meeting was held at Brighton, on Wednesday the 13th, and Thursday the 14th of August, 1851. The following gentlemen were present. We regret we have not had materials for the compilation of a complete list. Above three hundred members were present.

Alford—R. U. West, Esq.
Arundel—Silas Stedman, M.D.
Aylesbury—Robert Ceely, Esq.
Basingstoke—Thomas Workman, Esq.
Bath. J. S. Bartrum, Esq.; W. Church, Esq.; W. Davies, M.D.; Edw. Hodges, M.D.; G. Norman, Esq.; John Soden, Esq.; Thomas Stokes, Esq.; James Tunstall, M.D.
Bexhill—F. Wallis, Esq.
Birmingham—G. B. Knowles, Esq.; J. Wickenden, Esq.
Brentford—G. Cooper, Esq.
Brighton—J. C. Burrows, Esq.; Charles Carpenter, Esq.; C. W. Crowdy, M.D.; H. Davies, M.D.; Richard Dill, M.D.; G. Drummond, Esq.; J. C. Franz, M.D.; T. B. Horne, Esq.; G. S. Jenks, M.D; R. H. Kemp, Esq.; W. King, M.D.; George King, Esq.; John Lawrence, Esq.; G. Lowdell, Esq.; J. M'Whinnie, M.D.; James Oldham, Esq.; E. L. Ormerod, M.D.; G. E. Pocock, Esq.; George Royde, Esq.; R. Rugg, Esq.; S. K. J. Scott, Esq.; B. T. Seabrook, Esq.; T. H. Starr, M.D.; B. Vallance, Esq.; Wm. Wilton, Esq.; T. B. Winter, Esq.
Bristol—C. J. Fox, M.D.
Brockton—Joseph Hickman, Esq.
Callington—John Kempthorne, Esq.
Cambridge—G. M. Humphry, Esq.
Canterbury—James Reid, Esq.
Cheltenham—A. H. Hull, Esq.; J. D. Hull, Esq.; Thomas Smith, M.D.
Chichester—Allen Duke, M.D.; J. M'Carogher, M.D.; N. Tyacke, M.D.
Chester—J. Edwards, M.D.
Chiswick—Harrington Tuke, Esq.
Clifton—John Colthurst, Esq.
Cowfold—Thomas Gravely, Esq.
Crawley—Thomas Smith, Esq.
Croydon—G. Bottomley, Esq.; W. Chalmers, M.D.; C. Lashman, Esq.; E. Westall, Esq.
Cuckfield—T. S. Byass, Esq.
Dover—George Soulby, M.D.
Farnham—W. Newnham, Esq.
Great Grimsby—Thomas Bell, Esq.
Guildford—A. Napper, Esq.; James Stedman, Esq.
Hailsham—J. M. Cunningham, M.D.
Hanwell—John Conolly, M.D.
Hartfield—William Wallis, M.D.
Hastings—W. A. Greenhill, M.D.
Hayes, Middlesex—W. Conolly, M.D.
Hereford—J. B. Lye, M.D.
High Wycombe—William Rose, Esq.
Hillingdon—A. Stilwell, Esq.
Hull—F. R. Horner, M.D.; J. A. Locking, Esq.; Edward Wallis, Esq.
Hurtspierpoint—H. M. Holman, M.D.; R. Weeks, Esq.
Leeds—R. G. Mayne, M.D.
Leicester—Thomas Paget, Esq.
Lewes—Henry Moon, M.D.
Lindfield—J. H. Bull, Esq.
London—William Baly, M.D.; J. M. Beane, Esq. (Peckham); Jno. Bowling, Esq. (Hammersmith); T. L. Blundell, M.D.; I. B. Brown, Esq.; George Burrows, M.D.; John Rose Cormack, M.D. (Putney); Edwards Crisp, M.D.; Mark Dewsnap, Esq. (Hammersmith);

S. Hare, Esq.; William Harvey, Esq.; Thomas Hodgkin, M.D.; Joseph Hodgson, Esq.; C. F. J. Lord, Esq. (Hampstead); Henry Oldham, M.D.; John Propert, Esq.; A. Shaw, Esq.; Francis Sibson, M.D.; T. H. Silvester, M.D. (Clapham); John Snow, M.D.; T. Taplin, Esq.; Theophilus Thompson, M.D.; Joseph Toynbee, Esq.; W. H. Walker, Esq.; Charles West, M.D.; Charles J. B. Williams, M.D.; Forbes Winslow, M.D.; James Yearsley, Esq.

Long Sutton—Henry Ewen, Esq.
Maidstone—William Addison, M.D.
Manchester—John Bridecook, Esq.; S. Crompton, Esq.; John Hatton, Esq.; Edmund Lyon, M.D.; T. Radford, M.D.
Melton—John Kirkman, M.D.
Needham Market—J. Bedingfield, M.D.
Newhaven—John Noakes, Esq.
Northampton—Arch. Robinson, M.D.
Norwich—W. H. Ranking, M.D.
Norwood—W. Street, Esq.
Oswestry—Peploe Cartwright, Esq.
Pocklington—Thomas Hornby, Esq.
Reading—Charles Cowan, M.D.
Reigate—P. Martin, Esq.; John Steele, Esq.
Rochford—John Grabham, Esq.
Romsey—J. R. Beddome, Esq.
St. Asaph—O. Roberts, M.D.
St. Leonard-on-Sea—P. Blakiston, M.D.
Sevenoaks—George Kelson, Esq.; J. L. Worship, Esq.
Southam—H. L. Smith, Esq.
Southampton—O. W. Williams, M.D.
Southwold—Robert Wake, M.D.
Spalding—E. Morris, M.D.
Steyning—R. A. Frew, Esq.
Stockport—G. Downs, Esq.; J. Rayner, Esq.; George Turner, M.D.
Stowmarket—C. R. Bree, Esq.
Stratford-on-Avon—T. Thompson, M.D.
Sunbury—J. S. Soden, Esq.
Taunton—F. H. Woodforde, M.D.
Thrapston—J. G. Leete, Esq.
Timsbury—J. Crang, Esq.
Torquay—J. J. Field, M.D.; C. Radclyffe Hall, M.D.; C. B. Nankivell, M.D.
Totnes—John Derry, Esq.
Tring—Edward Pope, Esq.
Tunbridge Wells—W. H. Cook, Esq.; R. R. Gream, Esq.; G. Moore, M.D.; G. Moore, Jun., Esq.
Uxbridge—James Stilwell, Esq.
Warminster—G. Vicary, Esq.
Week St. Mary—J. K. Tuke, Esq.
West Coker—Charles Penny, Esq.
Westerham—C. M. Thompson, Esq.
Winchelsea—R. C. N. Davies, Esq.
Wingham—F. H. Sankey, Esq.
Worcester—H. D. Carden, Esq.; Sir Charles Hastings, M.D.; Jonas Malden, M.D.; George A. Sheppard, Esq.; J. P Sheppard, Esq.
Worlingworth—E. B. Rector, Esq.
Worthing—Henry Collet, Esq.
York—Thomas Simpson, M.D.; Caleb Williams, Esq.

First General Meeting.

Wednesday, August 13th, 1851.

Sir Charles Hastings moved that Dr. Horner, of Hull, take the chair.

Dr. Horner: I resume the chair but for the purpose of inducting thereto my successor, Dr. Jenks, and I congratulate the Association that their choice has fallen upon one whose experience and ability so well befit him for the office. I think, gentlemen, that we have much cause for satisfaction at our present position; let us not, however, I beseech you, therefore be content—be satisfied—with where we now are, for we know that these are days of progress, of onward movement, of discovery. To put forth only exertions which we have been in the habit of putting forth, would really be to retrograde in the great intellectual march. There is greater cause than ever for exertion; and as the eagle is fabled to fix its piercing gaze on the sun, and thitherward unswervingly to cleave his course, so let the light of knowledge, the good of mankind, and the advancement of science, be as it were the shining beacons of our course. With an eye that is single, and a purpose that is determined, be our course like the eagle's—onward—right on. There is one subject to which I will only cursorily allude; it is one, however, on which I have strong personal feeling, and which I cannot in my office of retiring President, refrain from just alluding to—I mean the sad bereavement which we have sustained in the death of Dr. Mackness. He was my sincere and my valued friend. But a week before his death, he wrote me expressing his congratulations at the thought of reading an address before you in this room, on this day. Here is the audience; but where is the lecturer? *Sub cespite jacet.* I say this does give us a reason for now doing our

duty in that state of life to which we have been called. If we are willing to exert ourselves for the benefit of our fellow-men, and for the great objects of the Association, now is the time that we should do it. Such a painful event also naturally awakens in the mind other feelings, of a far more important nature. The words of Young occur to my mind as most applicable:

"Whose grave prescribes the best? A friend's.
And yet, from a friend's grave how soon we disengage!
E'en to the dearest, as his marble cold.
Why are friends ravished from us? 'Tis
To bind, by soft affection's ties, the human heart
To thoughts of death, which reason, too supine,
Or misemployed, ne'er fastens there.
And yet nor reason, nor affection, nor both combined,
Can break us from the witchcrafts of this world!
The inexorable hour,—how near at hand!
The inexorable hour,—how soon forgot!
Nay, to forget it, the chief aim of life,
Tho' well to ponder it is life's dire end."

We have now specific duties before us; and whether I look at the magnificent arrangements which have been made for you, or whether I look to the high character of our medical friends at Brighton, or whether I look at our Association, now in all the vigour of its nineteenth year, I am sure I can safely foretell a most happy, and a most prosperous meeting.

Dr. Jenks, amid hearty applause, then took the President's chair, and said: Gentlemen,—When I look round upon this assembly, composed of members of a learned and scientific profession, many of whom by the force of intellectual zeal and power have risen to distinction in the highest walks of literature and science, as well as in the various branches of medicine and surgery, and consider that I have been nominated to preside over so distinguished a body, I feel deeply sensible, I assure you, of the great honour conferred on me; but unaccustomed as I am to fill so high an office, I hardly know in what terms I can make my acknowledgements acceptable. I must entreat you, therefore, to receive my best thanks as kindly and favourably, as I tender them cordially and gratefully.

In entering upon my office, gentlemen, believe me, I have no little mistrust of my ability, through inexperience, to fulfil the duties thereof in a manner adequate to my own ideas, much less equal to the expectations of such an audience. I must, therefore, crave a larger share than usual of that indulgence and support which you always readily accord to your Presidents. I know well, on looking at the names and qualifications of those gentlemen who have already filled this chair, that there is no lack of admirable and excellent examples to all who may come after; but this very excellence it is, which augments the difficulties of their successors. In all posts of honour men are excited to do their best. There is a not unbecoming pride in doing more than was expected of us, and not less than others would have done; but with such an array of distinguished predecessors before me, in all humility and sincerity, I regard the latter hope as unattainable. I must be content to follow, *haud passibus æquis*, those eminent persons who, with so much dignity and ability, have conducted the deliberations of these meetings on former occasions, and shall think myself well rewarded if I succeed in imitating their example to your satisfaction; if not, I feel persuaded you are generous enough to accept the intention favourably, and to think there may be even some merit in the earnestness of my endeavours.

We are now met to celebrate the nineteenth anniversary of the Provincial Medical and Surgical Association, and the numbers assembled here this day abundantly testify to the continued prosperity and importance of the Society. Great have been the benefits conferred on its members, in the diffusion of knowledge, in the union of thoughts and interests, in the interchange of

kindly offices—and, I think I may add, that faithfully and extensively has the General Association been seconded in this good work by the local branches.

It was happily and wisely determined, by the honoured founder of this Institution, to collect his widely scattered associates, year by year, into one place, where minds overwrought by the cares, anxieties, and Sisyphean labours of a busy harassing profession, might forget awhile their ever-recurring toil, and indulge freely in well-intentioned and dignified sentiments and communion, by which manners are improved, character is exalted, mutual esteem generated, and good fellowship established and strengthened. Besides the cultivation of the social virtues, we gather other fruits from these meetings. We learn the advantage of combination and concert for the advancement of professional objects, and for public ends. The difficult and much vexed questions of medical reform, the unrestricted sale of poisons, the state of health of the people, together with the legislative measures needful for their improvement, have occupied your time, and been maturely and deliberately considered.

Deputations from the Provincial Medical and Surgical Association have been received by those in authority with marked respect, and listened to with becoming attention. The resolutions formed at your meetings have taken effect, your reports been approved, and your suggestions upon legislative improvements adopted. In proof of these remarks, we may refer with satisfaction to the spirit of conciliation manifested by the Council of the College of Surgeons in their recent concessions; to the Sale of Arsenic Regulation Bill, and to the impulse given to sanitary improvements all over the country.

Furthermore, as an important auxiliary to your proceedings, you have a well-established, most ably conducted, and excellent *Journal*, which registers your deeds, publishes original essays, treasures up valuable facts, and is at once a channel for mutual correspondence, impartial criticism, and useful intelligence. The volume of "Transactions", published yearly, I may say, without fear of contradiction, deserves a place in every medical library in the kingdom.

But neither are social advantages, nor science, nor medical polity, exclusively the objects sought for and obtained on these occasions. From the bosom of these meetings there emanated that excellent and charitable idea of a "Benevolent Fund", for the relief of distressed and decayed members of the profession, and the widows and orphans of those deceased. In this beneficent cause, I might be pardoned for addressing you at the length it deserves—but I forbear. At the proper time, this subject will come before you, adorned with the moving eloquence and urged with the fervent zeal which have distinguished its able advocate, the Treasurer and Secretary, upon all former occasions. To him belongs the task, *magnum munus atque onus*, of appealing to you in behalf of our poorer brethren, and well persuaded am I that he will not do so in vain. Suffer me merely to remind you, that poverty is an evil bringing in its train so much trouble, peril, and misery, that while every man should strive to avoid it, he ought at the same time to help, as far as he is able, those whom the gripe of necessity has reduced to destitution. Indeed this can hardly be considered a duty that we can do or leave undone as we list, for many are they who stand in utmost need of our bounty. And shall the reproach be cast upon us that we do not readily assist one another? Upon us! the members of a profession, of whom it was said by Dr. Johnson, that "every man has found among them great liberality and dignity of sentiment, very prompt effusion of beneficence, and willingness to exert a lucrative art, where there is no hope of lucre".

If we look heedfully at the condition of many of our poorer brethren, especially in the rural districts—over-worked, badly remunerated, cruelly oppressed by hard task-masters, or perchance ruined by the reckless competition of interlopers, we shall see abundant necessity for a Benevolent Fund.

Much of this evil is to be attributed to the adverse administration of the Poor Laws. It would have given me great pleasure if I could have announced any improvement in the relative position of medical union officers and their oppressors—the guardians of the poor, as they are called; but I am sorry to say that the Committee of the Convention of Poor-Law Medical Officers have suspended their meetings through want of support. After a statement of their difficulties and proceedings, they conclude their report by urging "the Poor-Law Medical Officers and the profession in general to consider how much the redress which is sought, and for which so large a sacrifice of money, exertion, and time, has been made by some of their brethren, is within their voluntary grasp; but that it can never be hoped for so long as the degrading and ill-paid appointments are not merely accepted, but made the objects of eager competition."

Alas! how long will this spirit of rashness on the one hand, and supineness on the other, disturb our counsels, and cast reproach upon our very name and calling. Let it be remembered that, by this ruinous competition for Poor-Law appointments, the real thrift and progress of the profession are seriously injured; that, by undertaking more than they can perform, medical officers share the guilt of neglecting the poor with the so-called guardians; that, by receiving less than a just reward for their services, they degrade themselves, and damage not only the interests of their fellow-labourers with their own, but indirectly those of every practitioner in the kingdom. A competition, unlimited like this, degenerates into unlicensed selfishness, which can only be checked by judicious combination. These rival principles may both be considered useful when properly balanced. Some degree of honest rivalry or emulation is needful to develope the energies of mankind; and some degree of combination equally so to protect the interests of class or profession. The one is a duty we owe to ourselves, the other to our neighbours. The remedy for this debasing system of Poor-Law competition is chiefly in the hands of the Union Officers themselves; but much might be done by a Government acting upon public principles for the public good, and especially the good of the indigent poor, who in the main are the greatest sufferers by these irregularities.

From this discouraging state of things, however, let us turn to the subject of Medical Reform, which at length affords a better prospect. In the opinion of most thinking and well-informed men, the question of medical reform is now ripe, and probably none the worse for having been hitherto withheld. It has been cast into the crucible of public discussion, and has come out purified, and separated from much dross. The contending parties are now wiser, and better disposed to treat upon equitable terms. Upon this ground, therefore, we may look with more sanguine hopes than heretofore; with hopes, I would fain believe, well and solidly founded, that all parties, seeing the propriety of needful concessions, will concur in a plan of practicable and useful reform, which shall have for its basis the principles contended for by this Association, and on various occasions so ably advocated by the President of the Council and his colleagues. The consummation of these hopes, I am afraid, is not very near at hand; nevertheless, the good already effected is great; the progress, though slow, is assured. The moral certainty of some efficient reform should console us for its delay, for there is no fear of retrogression.

In the mean time, gentlemen, it behoves us all, and especially the junior members of our noble calling, to persevere steadily and diligently in cultivating the art and science of medicine; neither deterred by the difficulty of the study, which cannot be achieved without much labour, and no trifling proficiency in the other sciences; nor discouraged by a degree of uncertainty pertaining to it, in common with many other branches of human knowledge. "Whatever can be said of the uncertainty of the art of physic," writes Sir William Temple, "or the disagreement of its professors, they may, I believe,

confidently undertake, that when divines arrive at certainty in their schemes of divinity, or lawyers in those of law, or politicians in those of civil government, the physicians will do it likewise in the methods and practice of physic."

An earnest and truthful endeavour to improve our professional knowledge is the best foundation for public support, and the surest weapon wherewith to defeat the bold pretenders who rise up daily around us. Men of this description, whose maxim is, *ibi fas, ubi maxima merces*, have only themselves to serve :—we, our country and mankind. In such a cause our efforts are ennobled, and we should rather rejoice in being called to such a service.

Let not any man wonder that quacks and impostors should abound even in these enlightened days. They have abounded in all times and in all professions, and probably will never cease ; for there is nothing so irrational or extraordinary that some men will not maintain for truth, feeling sure that the credulous and ignorant vulgar, rich and poor, will receive it with implicit belief. We live in an age, for example, supplying humble followers in great numbers to Mormonism, and educated *gobemouches* in crowds to Mesmerism.

It is not my intention to treat of the fashionable follies of the day—the mystifications and legerdemain of Mesmerism, the unreal mockeries and sublimated jargon of homœopathy, nor the more dangerous excesses of hydropathy. All this has been admirably done lately by an accomplished member of this Society. I would observe merely that such aberrations from the path of true medical science should be abjured and repudiated with firm and solemn resolution, while the professors thereof may be left to an avenging Nemesis, which may one day or other overtake them. Let me, however, turn your attention to an evil which has developed itself within our own ranks.

" Iliacos intra muros peccatur et extra."

We have treachery within, and war without. Open adversaries we know well how to deal with ; but it is another thing when a man's foes are of his own household. I am grieved to hear that some, even of the legitimate sons of physic, are tainted with the leaven of these new doctrines, that others, like the bat in the fable, take either side as it may suit their purpose, while a few have not scrupled from indifference or crooked policy to countenance this defection, or to shield it by a sort of compurgation. Against this laxity of conduct the opinion of the profession should be unmistakably pronounced. To admit seceders, or doubtful allies, to the privileges of regular practitioners, or to an equality in consultation, is the same sort of treason to the profession as the admission of the wooden horse within the walls of Troy. I trust enough has been said of late to induce those who have extended an ill-timed indulgence to these false brethren to withdraw from further communication with them ; for we must never look for peace with quackery in any of its monstrous shapes. As to the apostates themselves, it would be well that by a self-ostracism they quitted altogether the ranks of a profession which by a half-faced fellowship they dishonour and betray, lest, neglecting such admonition, they find at length " forbearance no acquittance". Their secession will relieve us from much embarrassment, and their hostility will have no other effect than to strengthen our mutual confidence, improve our discipline, and excite us to increased exertion.

It has been usual, I believe, on these occasions, to pass in review the characters and services of those members of the Association who have departed this life during the past year. Time will not permit me to dwell upon the worth and merits of each individual ; and were it otherwise, I could not perform that melancholy but grateful office, from lack of needful information. But there is one whom I cannot pass over without paying to him the tribute due to a most able and zealous member of this Association ; one who, had he been spared, would have been a principal contributor to the proceedings of this day.

I do not take upon myself the office of biographer, but a short summary of the principal events in the life of our late lamented associate, Dr. Mackness,

may not be unacceptable. In early life he met with some trials, and was beset with difficulties, which to many might have seemed insurmountable. By dint of patient industry, frugality, and an excellent understanding, wholly unassisted by favour or fortune, he cleared the way at length to eminence, and made good his position. His was no exception, however, to the rule of the poet—

> "Haud facile emergunt, quorum virtutibus obstat
> Res angusta domi."

It would be foreign to my purpose to follow our late colleague through the difficulties he encountered, and so manfully overcame. I intend only to shew you that he sounded all the depths, and passed through all the tides of medical life. He began his professional career as a general practitioner in a country village, whence he removed to a larger field of practice at Northampton, but being unequal, through ill health, to the numerous and very arduous duties of general practice, he retired. In May 1840, he went to St. Andrew's, where he took the degree of Doctor of Medicine. In the year 1843, he became an extra-licentiate of the Royal College of Physicians, London. Soon after he had obtained his degree at St. Andrew's, he settled at Hastings, where he continued to practise as a physician till his death.

In private life he was beloved, and deservedly respected; he was a cheerful and instructive companion; his sentiments were solemnly religious, but elevated and liberal; his manners gentle and unassuming; his professional acquirements were of the highest order. To great skill and readiness in detecting and treating disease, he added good sense, urbanity, and benevolence. Though fully occupied in practice, he found time for several publications; he added to the stock of medical literature (besides minor performances), a work on *The Moral Aspects of Medical Life*, containing a translation of the *Akesios* of Professor Manx. In this work of our late associate some inexperience in the art of composition is apparent; but it is rich in medical ethics, containing a judicious selection of facts, and abounding in interesting anecdotes. He wrote also a monograph on *Dysphonia Clericorum*, a work displaying distinct and accurate views of a disease not heretofore separately treated of, and manifesting great ability and judgment in the application of those views to practice. He was occupied in preparing a *Report upon the Medical Topography of Sussex*, when the hand of death removed him from among us. Dr. Mackness died at the early age of 46. It may be said of him, as it has been said of another eminent physician, that "he worked out for himself an education, a profession, a reputation, and a competence".

The SECRETARY read the REPORT OF THE COUNCIL, from which we copy some extracts.

"FINANCES. The statement is as follows:—

	£.	s.	d.
Balance in hand, 1850	109	18	6
Receipts	1616	19	7
Expenditure	1632	14	11½
Balance	94	3	1½

"MEDICAL REFORM. This difficult question still remains unsettled, but the Council fervently hope that it is approaching a termination that may ultimately prove satisfactory to all parties. The present year has been distinguished by the Council of the College of Surgeons taking the lead in the adoption of a highly conciliatory course of conduct, for which they deserve, and have received, a meed of praise from all parties in the profession. This concession has very considerably lessened the obstacles which stood in the way of medical reform. There are, however, still some difficulties to be overcome, which require calm and careful consideration; but as all parties are now animated by an earnest desire that this long contention should cease,

your Council cannot but look forward to the final settlement of the question at no distant day."

"As soon as it was known that the Council of the College of Surgeons were prepared to yield so much, your Council communicated with many members of the Association, and with the accredited societies, who had worked with them to obtain a legislative amelioration of the profession. The result of this consultation was, that it was deemed prudent by all parties to accept the proffered terms of the College, with some slight modifications. Your Council, therefore, thought it right to address the Secretary of State for the Home Department, and at the same time assured him that they felt gratified by the concessions which had been made by the College; they also reiterated the principles on which they considered any safe medical legislation should proceed."

"Since the memorial no further step has been taken, as the near approach of the anniversary rendered any further movement unnecessary. The Council, however, have thought it desirable to seek the opinion of the District Branches on the course they have pursued, and they are happy to say it has received their sanction."

"Medical Ethics. The subject of medical ethics is very important, and from the commencement of our Institution has attracted more or less attention. A committee was appointed at Worcester to report on this subject, but has not hitherto done so, partly because of the death of one of the members, and the ill health of another, and partly in consequence of the great difficulty of carrying on any deliberation where differences of opinion exist, by any means except *vivâ voce* communications. Some progress, however, has been made in the work, and a portion of the rules are in type. At the present juncture it is highly desirable that we should give a calm and judicious attention to medical ethics; for it is much to be regretted that many regularly educated members of our profession have connected themselves in doctrine and practice with some of the popular delusions of the day. It will be by the judicious consideration of such important matters that the advantages resulting from this Association will become more and more apparent. The inflexible adherence to correct principles and upright conduct, will thus continue to be the rallying point of the members of the Association, and they will evince their determination to maintain amongst them a sound philosophy and unblemished honour. Charles Hastings, President of the Council. James P. Sheppard, Secretary."

On the motion of Dr. Cormack, seconded by Dr. Forbes Winslow, the report was adopted.

Committee on Irregular Practice. Dr. Cormack moved—"That the prevalence of irregular and unprofessional practices ought to be considered at this annual assembly of the Provincial, Medical, and Surgical Association; and that a Committee be appointed to report to-morrow upon the course which it is proper to adopt. Dr. Tunstall seconded the motion, which was agreed to; and Drs. Cormack, Tunstall, and Ranking, were appointed a committee in terms of the motion.

The Address in Surgery was delivered by Mr. B. Vallance, of Brighton, and ordered to be printed.

Second General Meeting.

The Association reassembled, after an hour's interval, at two P.M.

Income-Tax Committee. Dr. T. Smith (Cheltenham) said that for a long time the members of the profession had suffered, most iniquitously in his opinion, from that ill-advised measure the income-tax (hear). To the medical man more especially the income-tax had been oppressive, and often-

times had very seriously affected his future interests. It had been in its operations most unjust, if not something more; and, as an instance, he would state a fact:—A medical man was taken ill shortly after making a return, which was made at a moment when he was in perfect health. He (Dr. Smith) was not now going into a newspaper narrative, but was stating a particular case. The person was taken ill shortly after making a *bonâ fide* return of his previous year's receipts,—perhaps he had compounded for three years; he was suddenly laid on a bed of sickness, and for some time deprived of the means of making up his income, and yet he had no appeal, and could not prevent the tax collector's receiving that full amount of income derived by government from the income-tax. The money was not in that case derived from the labours of the medical man; and such an unjust tax ought to be done away with. The matter had been before government, and the farmer had been allowed to make a claim, and a deduction had been granted to him; but the professional man, stretched upon a bed of sickness, had no appeal. (*Applause.*) It was a matter which ought to be pressed upon the Chancellor of the Exchequer. For his own part, he was most strenuously and decidedly opposed to the income-tax in any way whatever. It was a most iniquitous and unjust tax; and of all the taxes relative to the medical profession, the income-tax was the most unjust. And with regard to the mode of assessment, it was subject to much abuse. All the clerks were sworn to secrecy; but who would be answerable that a young man of eighteen or nineteen, would, upon leaving his employer, still value and adhere to the oath which he had first taken? He did not say that those young men did break their oaths, but still there was a probability that they might. And as regarded the secrecy of the income-tax, it was almost a complete farce. He (Dr. Smith) had compounded under the impression that his income would be kept perfectly secret. He went before the authorities, and, instead of taking his word, they put his name down at £20 instead of about £7 a year, and he allowed it to remain. He went to pay the money, and in that room where everything ought to have been profoundly secret, he saw some twenty persons, and there was a list there containing the names of all the parties who had compounded under what was called the Special Commissioners' Act, and he could have read the whole of that list if he had thought proper to do so. That was considered secrecy! So far as professional men were concerned, it was a matter of great importance that the amount of income derived from their business should not be known. He was not satisfied also with the workings of a measure which compelled the medical men of Great Britain to pay a tax from which their brethren in Ireland were exempt. If the medical profession were free in one part of Her Majesty's dominions, it ought to be free in another. (*Applause.*) And also, as regarded the assessment-tax, their brethren on the other side of the water were exempt, whilst they had to pay, and on these grounds a favourable opportunity existed for the medical profession to bestir itself, and endeavour to influence the legislature to make a reduction of those taxes which so seriously affected every member of the profession. And with regard to the assessed taxes, there was a movement on foot at the present time, to make the tax upon coach horses more equalized. He knew several parties who were independent, and could ride in their carriage without having to pay that tax, whilst they (the profession) worked hard and laboriously to earn their bread, and yet were compelled to pay that tax. The farmer could now have his horses exempt, but medical men had not the slightest exemption, and government always imposed taxes upon the profession whatever the effect of the imposition might be. And again, with regard to the house duty, they had to pay 9d. in the pound as professional gentlemen, whilst the merchant, rolling in wealth, had only to pay 6d. He hoped that the meeting would carry his motion and appoint a committee to inquire into the laws affecting taxation, and more especially with reference to the income-tax. He moved,—"That a Committee be

formed for the purpose of investigating the subject of taxation, so injuriously and oppressively affecting the medical profession."

Mr. Newnham, of Farnham, seconded the motion.

The motion was carried unanimously; and an influential committee was formed in accordance with it.

Benevolent Fund. Mr. Newnham read a very interesting Report of the Benevolent Fund. The cash account is as follows:—

DONATION FUND.

Dr.	£	*s.*	*d.*	*Cr.*	£.	*s.*	*d.*
Amount invested to July 1850	2179	10	6	Amount previously invested	2179	10	6
Interest for the year	62	10	0	Balance due to Treasurer, July 1, 1850	11	9	6
Donations for the year ..	188	15	0	Annuities, November 1850	37	10	0
				Do. May 1851	37	10	0
	2450	15	6	Purchase of Bank Stock July 1851	214	14	6
Per contra	2450	15	6				
Balance due to Treasurer	29	19	0		2480	14	6

Value of Bank Stock invested, £1200 at 214.....£2568

SUBSCRIPTION FUND.

Dr.	£	*s.*	*d.*	*Cr.*	£	*s.*	*d.*
Balance, July 1, 1850	33	1	1	Benevolent aid to June 30	464	2	6
Subscriptions to June 30, 1851	540	1	4	Nichols, for stationery and printing	20	16	6
				Envelopes and stamps	26	15	10
	673	2	5	Advertisements and expenses of Local Secretaries	5	0	2
Per contra	516	15	0				
Balance in Treasurer's hands	56	7	5		516	15	0

DISTRIBUTION OF BALANCE.

Donation Fund due to Treasurer	£29	19	0
Subscription Fund in Treasurer's hands	56	7	5

Dr. W. Conolly moved the adoption of the report.

Dr. T. Thompson (Stratford) had great pleasure in seconding that motion. In the whole range of the Association not another gentleman would be found willing to devote so large a portion of his time to the promoting the objects of the Benevolent Fund, as their respected friend, Mr. Newnham. *(Cheers.)*

Empiricism. Dr. Malden (Worcester) read a very talented essay on this subject, which was ordered to be printed.

Prognosis of Insanity. Dr. Conolly, of Hanwell, read a highly valuable practical paper on this subject, which will likewise appear in the Transactions of the Association.

At six o'clock the members assembled in the Banquet Hall of the Pavilion, in compliance with the invitation of Dr. Jenks and the other medical gentlemen of Brighton, to partake of a splendid cold collation.

Dr. Mantell's Address. After dinner Dr. Mantell delivered a lecture, in the Music Room, upon "The Medical Topography of Sussex".

Third General Meeting.

Thursday, August 14th, 1851.

The President took the chair at twelve o'clock; and immediately called for the Report of the Committee on Irregular Practice.

Dr. Cormack said: I have the honour, sir, to be commissioned to offer for the acceptance of this great meeting the Report of the Committee, which was yesterday appointed, to consider the course which the Association ought to adopt with reference to the prevalence of irregular practice, and unprofessional conduct. The great amount of important business to be disposed of

before we separate, suggests the impropriety of a long speech: and yet it does seem essential for me briefly to state the general principles upon which the Committee have proceeded, and in particular to mention the grounds upon which they have founded certain Resolutions, which they hope the Association may adopt as its own.

Although the terms of our appointment might have justified a more general notice of the prevailing delusions and impostures of the day, we have thought it best to direct your attention solely to what is called homœopathy, as along with it are almost invariably associated some of the other fashionable systems of charlatanry. I am anxious to state, at the outset, that we have not thought it necessary to adopt the language of controversy; and that we have conceived the main duty of this body to be *defensive*, and not *offensive*. If there were no fear of quackery, in one of its most seductive and demoralising forms, creeping into our society, to spoil our social meetings, and canker the integrity of our professional intercourse with each other and with the public, it might be wrong to enter on this discussion; but when we see members of the medical profession fighting the battles of a mischievous charlatanry, under the banners of legitimate medicine, it is time for us to be stirring, lest these apostates, when actually sheltered by this Association, damage its respectability, and perhaps ultimately endanger its very existence. Unlike the Colleges, we have no Royal charters upon which to rest in supine and dignified tranquillity: our only charter is the association of numbers in defence of truth and high-toned professional honour. This charter—the best of all charters—it is our duty and our privilege to defend. We are not required, however, to make an aggression upon the allied armies of quackery; but the aspect of society, and of the profession, do loudly call on us to raise bulwarks and defences sufficient to prevent this enemy from stealing a march upon us, and destroying our citadel ere even the cry of danger has been heard. Such, then, are the general principles which ought to guide us; and which, when applied to the actual relation of the profession to homœopathy, mark out the necessity of excluding from this Association three classes of practitioners; first, those who really (and some of them honestly) practise homœopathy; second, those of a mixed or bastard breed, who practise homœopathy, in combination with Mesmerism, hydropathy, allopathy, or *any-pathy* which the patient may fancy the most; and third, those who, under various pretences, hold professional intercourse with homœopathic practitioners. *(Cheers).*

It would be an unseemly waste of time, to prove before this assembly that homœopathy is a mere chimera—a system opposed to reason, common sense, and all medical experience; but I may be allowed to state in a few words what Hahnemannism is, and briefly to explain who are the incongruous crew who range themselves against us, under the flag of homœopathy. Three leading doctrines, or rather dogmas, were promulgated by the German dreamer:—First, that all diseases depended upon three inherent taints, the principal one being the itch, or psora, as he called it; second, that "like cures like"—*similia similibus curantur;* and third, the giving of infinitesimal doses. It has been often and elaborately shewn, that these dogmata, these chimeræ, have not only no scientific basis, but have neither facts nor even probabilities to rest upon. The statements made about medicines acting when divided into the millionth or decillionth of a grain, are so transcendently nonsensical as to be entertained even as a subject of consideration, for an instant, only by an unhealthy mind. The simple fact is this, that Hahnemann's doses cannot be demonstrated to exist, and are so small, that the mind of man can form no conception of their minuteness. Some homœopaths repudiate, in a sort of half-and-half way, the small doses; but the public who fee homœopathic doctors, generally conceive that their medicines are given to them in the attenuations of Hahnemann, in quantities ranging from a millionth to a decillionth of a grain. "Little pills" were yesterday lauded

by a platform speaker at the Homœopathic Meeting in Freemasons' Tavern; but his laudations were perhaps applauded by men who give as freely, or more freely than many of us would dare to do, strychnia, aconite, and other such like drugs, the most terrible doses of which may be administered in drops, and fractions of a grain. Large doses of our common medicines, as I well know, are also every day prescribed by men who come forward as candidates for homœopathic practice among the wealthy and the noble. "Little pills" may be, but certainly a little quantity of physic is not a criterion by which to know the practitioners who range themselves under the flag of homœopathy. Dr. Quin openly advised what I may term very large doses of camphor in cholera; and in my own experience I have found that patients had been taking, along with the globules, (under the name of adjuvants), the same medicines, and in the same doses, which we employ, and which experience has sanctioned. What is now called homœopathic practice, may, I aver, mean any kind of practice. (*Hear, hear.*) I have said enough to show you how vain it is to define what is meant by homœopathic practice, when I mention that, at a recent meeting of the Annual Congress of homœopathists, there was present, as a large participator in the business, Dr. Wm. M'Donald, who, besides being a homœopathic practitioner, is a leading man as a believer in, and lecturer on, the highest degrees of Mesmerism. Then Dr. Macleod (whose autobiography I hold in my hand), the keeper of a water-cure inn at Benrydding, in Yorkshire, is a chosen champion of homœopathy,—a man whom the *Homœopathic Times* delights to honour, and who treats his patients by globules and wet sheets. Dr. Henderson, of Edinburgh, Dr. Calvert Holland, and Mr. Kingdon, of London, prescribe infinitesimal or ordinary doses, according to their own or their patient's fancy. I select these gentlemen as my examples, because their acts are before the public, in print. The medical creed of these practitioners it is impossible for us to comprehend. They are, however, a large and increasing class; and on that account they seem to claim special attention in our Report. It is, then, the opinion of the Committee, that both the real homœopathic practitioners, and those who practise homœopathy in combination with other systems of treatment, ought not to be members of this Association.

But, besides the legitimate and the bastard homœopaths, there is another class of men who have no right to be associated with us in this Society. Regarding this class, I wish to say little, but that little must be plain, and it is this:—that we must not—not one member of the Association must for the future hold professional intercourse with those traitorous men who meet at the bedside with practitioners whose medical creed and character I have (though perhaps too mildly) depicted. A broad line of demarcation must be drawn, and it must be done this day. (*Loud cheers.*) Private friendships have perhaps made some of us too long in adopting this painful, but only right course. To error or imposture there never can be made an honourable concession. (*Hear, hear.*) I would here remark, that no retrospective legislation is contemplated; nor is it proposed to enact new laws to-day. We only wish certain general principles to be sanctioned, as the basis upon which laws for the future governance of the Association are to be framed, and afterwards submitted to the next annual meeting for ratification. By adopting this course, the respectability of the Association will be sufficiently guarded and maintained; and no one will be able to bring against it the charge of having acted precipitately, or under the influence of excitement. (*Hear, hear.*)

One of the most curious features of the homœopathic quackery is this, that while its professors vilify the science of medicine as we follow it, and abuse us through the press, the platform, and the pulpit, they yet eagerly seek their credentials from our Colleges, and even try to enter our more private Medical Societies. This, however, must not be allowed; and it is incumbent upon us, as representing the medical practitioners of England, to tender

hearty thanks to the Scottish Colleges and Universities, for their repudiation of homœopathic practitioners.

The mention of *the pulpit* brings to my recollection a topic which cannot be passed over, and which I approach with feelings of the deepest pain and sorrow. I will not yield to any man in my respect for the sacred office of the ministry; myself the son of a clergyman, I have always felt that the only other calling more noble than our own is that of preaching the everlasting Gospel; but, when clergymen assail us from the pulpit, and injure our influence with our patients, by their zeal in converting proselytes to Hahnemann, neither delicacy nor duty can justify our silence. Numerous facts have been laid before your Committee, from which we have ascertained, that in some districts of the country the zeal with which the clergy have taken up quackery knows no bounds, and many of our brethren have had their patients wiled away, by clerical canvassing, to homœopathy, hydropathy, and Mesmerism.

I would not have ventured, however, to bring this prominently before you, did I not hold in my hand a sermon preached by a rev. vice-president of the Hahnemann Hospital, in Bloomsbury-square, from which it is necessary that I should read some extracts. The preacher was the Rev. Thomas R. Everest, Rector of Wickwar. He selected his text from the Gospel of St. Matthew: "And as ye go, preach, saying, the kingdom of Heaven is at hand: heal the sick, CLEANSE THE LEPERS, raise the dead, cast out devils: freely ye have received, freely give."—Chap. x, 7, 8. In this text the rev. gentleman finds revealed the doctrine of Hahnemann! But I will give you his own explanation of the words of the Evangelist,—"Heal the sick and cleanse the lepers. *Cleanse the lepers?* Why pick out disease at all from amongst all the ills of men? And if so, why that particular one? Why not blindness, or madness, the stone, or the dropsy, rheumatism, or the gout?" (p. 29.) The leprosy of St. Matthew, and the psora of Hahnemann, are the same thing. That, in fact, is the grand idea of the sermon.

This reverend vice-president of the Hahnemann Hospital broadly and plainly proclaims from the pulpit of St. Augustine, Cheapside, that our Saviour's atoning sacrifice was scarcely available to fallen man till Hahnemann appeared. (*Sensation.*) Bear with me while I read a short passage to make good my assertion. It is almost too bad to read aloud; but I must do so, to save me from the charge of misrepresentation. "At the fall of man sin entered into the soul, and disorder into the physical frame (with which that soul is connected) at the same moment. God sent his Son to repair the mischief, and he bade his ministers preach the Gospel, and heal the sick; that is, cure the moral disorder and the physical disorder together; and for 1,900 years that precious wisdom has cried in the streets unheard. The preacher of the Gospel, not aware that that Gospel could never have free course until the physical leprosy of man was cleansed, and his chronic tendencies cured, has handed over to a separate profession the business with which his Lord entrusted him. And that profession, unconscious of its privileges, its duties, its powers, has, so to speak, ignored the whole question. It leaves those mad whom it might have cured, or it maddens men by large doses of powerful medicines; and then we wonder at the crimes and folly that mark the career of man."

"Let us be assured, brethren, that there is in the Gospel of Jesus a life, a power, a spirit, which is so much in harmony with man's happiness, and brings with it so much good, that if it had been understood by those who teach it, and had had fair play, it would long ago have altered the whole face of society. But in spite of Moses, in spite of Jesus, in spite of the law of Nature, alike deaf to God's voice and blind to facts, the medical profession has left the leprosy of the flesh to entwine itself with the leprosy of the soul. Between the two, man's tendencies to sin are increased by the disorder of his

reason, caused by the abnormal working of his machinery; and the Gospel finds in that individual in whom God intended that all should be normal, but with whom it can only communicate by means of nerves in a chronic state of irritation and a brain in discordant working, not a gentle convert but a hardened criminal, a perverse unbeliever, a furious fanatic, or an eccentric, unreasoning lunatic. But old things are passed away, behold all things are new made unto us. Let us now see what the new system proposes to do for the human race" (pp. 40, 41). That is to say, let us see how homœopathy is to render available the hitherto almost useless Gospel of Jesus Christ—unable, till Hahnemann appeared, to make head against "large doses of powerful medicines".

The preacher traces all the diseases and vices of the human race to our "frantic medicines": and this he brings out in many parts of the sermon: and, as example, I quote one paragraph—it is his appeal to the pockets of his audience on behalf of the Hahnemann Hospital:—

"Mothers! do you wish to see your children washed clean of that leprous tendency to disease which fills our grave yards with sweet young flowers cut off untimely, and which, to those who survive, transmits a legacy of pain, sin, and sorrow? THEN AID US! Fathers! do you wish to see your sons grow up faithful Christians, and sensible men, with a normal allowance of health, able to use calmly the reason which God has given to man for his comfort here, far from all extravagance, and all eccentricity, holding a course of life steady, reasonable, religious—such a course as man, healed, God-fearing, and intellectual, should hold? THEN AID US! Governors of God's heritage, monarchs, parliaments, magistrates! There is a gloomy thunder-cloud collecting on the horizon, rolling its deep masses over the face of day, threatening, lurid, portentous; but no man knows exactly of what. It is called Socialism, Communism, the Rights of Man, the Rights of Labour, the Red Republic. It is earnest, dark, sombre, avenging. It has been lashed up by hunger, low wages, glaring inequality, wicked passions of psoric origin, roused by alcohol and medicines, maddened by burning eloquence. It has no strain of gentleness in it. It is arrested by neither ridicule nor menace. There is not one smile, or one jest hidden beneath its fantastic Swirls. The sword has cleft it, but it re-unites more baleful than before. The cannon has poured its hail against it, but it rolls on as dense and as red as ever. The priest has cursed it; society trembles to hear of it; but there it hangs, in the calm that precedes the earthquake; baffled, perhaps, but biding its time till the 'hour come, and the man'. Shall I teach you to draw the lightning quietly from it ere it bursts upon your throne and your altar, and piles all your institutions into one heap? AID US!"

I must still inflict two other extracts upon you: they give more concisely than any other which I can select, the preacher's contrast between homœopathy (which he designates the "Good News of Great Joy"), and our system of medicine, which he maintains to be the origin of "gaols and gin-palaces; terrible crimes, for which scarcely the siege of Jerusalem could find a parallel; bands of prostitutes gathering round the dome of St. Paul's", etc. etc. After pointing out that from the womb the infant must be prepared for heaven by means of globules, he thus announces the result of such treatment:—

"The medicine of love has prepared the soil for the Gospel of love. The seed of the Word will soon strike root in such a soil, and bring forth much fruit; not the fruit of thievery and crime, afflicting folly and snarling religion, that exist at present, but a wholesome crop of sensible actions and sound opinions ripened by the steady rays of reason and religion. Growing up thus amidst calm, and sunshine, and love, and harmony, induced by the medicine of harmony, the education of the young candidate for heaven commences. The first care of the parents is, by proper dynamic medicines, (for

medicines in a brute, material state, having a totally different action on the human organism, are perfectly useless, or rather merely injurious) to eradicate all those psoric tendencies which cause or increase all our aches, pains, ill tempers, obstinacies, rebellions, cachexies, and all chronic diseases. Life in the beginning does so long for harmony, that if thus gently aided, it soon overrides all discordant tendencies. The molecular attraction proceeds normally. The infant developes into a normal child of the normal type, in whom all tendencies to irregularity, whether of body or mind, growth or disposition, are much weakened and simplified. It has never been exacerbated by frantic doses of powerful medicines, never been excited by poisonous diet, never been beaten into obstinacy, never imitated the quarrels of its elders, never been spoiled into selfishness, never indulged into evil tempers; continuing the physical education, and watching carefully the cries which life utters for assistance, in order to relieve her just where and when she wants aid—never by mere palliatives, but always by dynamic remedies, whose energumenic power, akin to life itself, has been subtilly awakened and called forth from the brute mass in which it lay slumbering, and, if well chosen, will, by its unfailing elective attraction, restore to life at the very spot, by the very nerve wherein it labours, the very FORCE in which it is deficient—you commence the moral and religious training of the child. Plain, simple, easy, and charming, is THE GOOD NEWS OF GREAT JOY." (pp. 48, 49.)

So much for "the medicine of love"; now let us hear one or two of his sentences regarding our system:—"There was once a marriage made in heaven; but you put asunder those whom God joined together in heaven when you separated the healing of the sick from the preaching of the gospel, and made two professions out of that which Jesus made one; and therefore it is that the art of cure separated from the holy principles of love has lost its way, and fallen into foul company, and consorted with all unloveable things—cathartics, moxa, the lancet, emetics and blisters." (*Laughter.*) "And therefore, too, the Gospel parted from its earthly yoke-fellow, and preached by those who share in the sickness and leprosy of the race, has succeeded so partially, and brought forth the harvest of contradictions that you see in the Christian world." (p. 35.)

Now, sir, you have perhaps had more than enough of homœopathic divinity; but I was anxious to let the preacher speak for himself. Remember that Mr. Everest is vice-president of the Hahnemann Hospital—that the sermon was preached in aid of that establishment, which is under the immediate patronage of much of the wealth and aristocracy of this country. Advertised upon this sermon we find, as hospital office bearers, (along with the name of the preacher), his Excellency the Chevalier Bunsen, his Grace the Duke of Hamilton, the Earl of Wilton, the Earl of Shrewsbury, Lord Robert Grosvenor, M.P., and many others, prominent in society, both for rank and riches. To such lists we are generally referred triumphantly: and I admit that it would not be difficult to add to them the names of several members of Parliament, noblemen, bishops, and, at least, one archbishop—Dr. Whately: but alas! has not the train of St John Long, and many other noisome London quacks, been swelled by a similar throng of noble and reverend personages? Might not the same authorities be cited on behalf of the flimsy impostures of the present idol of fashionable fools, Mademoiselle Julie? Medicine cannot be acquired in leisure hours; it must be learned by patient and painful study at the bed-side and in the closet; and I have therefore yet to learn that statesmen and archbishops, even though they be good men, are authorities in matters of medical experience. Not all the coronets and mitres in England can give dignity to error, or transform a lie into the truth; and layman though I be, I hesitate not to proclaim in this public Christian assembly, that the sermon from which I have quoted is replete with quackery, heresy, and impious doctrine. *(Applause.)*

There is one other point in our Report which requires notice, and it is a recommendation to give great publicity to our determination not to have any kind of professional intercourse with homœopathic practitioners. It is necessary that the public be told authoritatively, and through the usual channels of information, that *they must select;* that, as for us, we positively refuse, *under any pretext whatever*, to hold professional intercourse with such persons; that with them we have no principles in common, and that, therefore, to take fees for meeting with them, would be something worse than degrading,—it would be appropriating money under false pretences; for a consultation without common principles would be a mere sham—it would be no consultation at all. *(Hear, hear.)* It is in this way that the public will be led to inquire into what homœopathy is; for I feel persuaded that not one in a thousand of its dupes has the slightest conception of the vastness of its absurdity, and the Protean wiles with which—setting honesty, consistency, and common sense, at defiance—it bewitches the sick and the silly.

Without further introduction or comment, I now read the

REPORT ON IRREGULAR PRACTICE.

Brighton, 14*th August*, 1851.

Your Committee have, after consultation with numerous members of the Association, maturely considered the subject referred to them, and beg respectfully to suggest the adoption of the following Resolutions:

1. That it is the opinion of this Association, that homœopathy, as propounded by Hahnemann, and practised by his followers, is so utterly opposed to science and common sense, as well as so completely at variance with the experience of the medical profession, that it ought to be in no way or degree practised or countenanced by any regularly-educated medical practitioner.
2. That homœopathic practitioners, through the press, the platform, and the pulpit, have endeavoured to heap contempt upon the practice of medicine and surgery as followed by members of this Association, and by the profession at large.
3. That, for these reasons, it is derogatory to the honour of members of this Association to hold any kind of professional intercourse with homœopathic practitioners.
4. That there are three classes of practitioners who ought not to be members of this Association, viz.,—1st, real homœopathic practitioners; 2nd, those who practise homœopathy in combination with other systems of treatment; and 3rd, those who, under various pretences, meet in consultation, or hold professional intercourse with, those who practise homœopathy.
5. That a Committee of seven be appointed to frame laws in accordance with these resolutions, to be submitted to the next annual meeting of the Association.
6. That the thanks of the Association are eminently due, and are hereby given, to the Presidents and Fellows of the Royal Colleges of Physicians and Surgeons of Edinburgh, for their determined stand against homœopathic delusions and impostures.
7. That the thanks of the Association are also due, and are hereby given, to the Universities of Edinburgh and St. Andrew's, for their resolution to refuse their diplomas to practitioners of homœopathy; but the Association feels imperatively called on to express its disapproval of any school of medicine which retains among its teachers any one who holds homœopathic opinions.
8. That these Resolutions be printed, and transmitted to all the MEDICAL LICENSING BODIES and MEDICAL SCHOOLS in the United Kingdom; and that they likewise be inserted in the *Times* newspaper, the *Morning Post*, the *North British Advertiser*, *Saunders's News Letter*, all the British and Irish medical periodicals, and in such other journals

as the Council may sanction upon the recommendation of the Branch Associations.

In proposing these Resolutions for the adoption of the Association, your Committee are anxious to state that they are actuated by a strong sense of the importance of the subject in its relation both to humanity and morals. They most conscientiously believe that the countenance afforded to the form of charlatanry herein alluded to, is detrimental to the true interests of the public, as it is subversive of that strict integrity which ought to characterize practitioners of medicine, and which has ever distinguished the profession in these kingdoms.

John Rose Cormack, M.D. Edin., Fel. Royal Col. Phys. Edin. (of Putney).
James Tunstall, M.D., Edin. (of Bath).
W. H. Ranking, M.D., Cantab. (of Norwich).

[*The reading of the Report was followed by prolonged applause*].

Such, then, is the Report of your Committee. It has been carefully considered; and it was not framed till the opinions of many associates had been collected and weighed. We, therefore, earnestly, and with confidence, as to the propriety of the course indicated, ask you to adopt it as an expression of the sentiments of the Association. It is a plain, straight-forward manifesto; but I sincerely trust and believe that it does not contain one expression which is in any way distasteful to a single member who now hears me. We must not think of what we are about to do as a matter of good or bad policy—we must only feel that we are this day called on to maintain, in the face of the world, the honour of our noble profession; and to express, in simple phrases, what we conscientiously feel to be the truth. Let us say our mind plainly, firmly, and calmly. Silence would be far better than the giving forth of a feeble and uncertain sound. (*Cheers.*)

Dr. C. J. B. Williams (of London) said:—Having been asked, since I entered the room, to second the adoption of the resolutions, I cannot hesitate to do so. Unprepared as I am, I cannot help saying a few words on the subject, although, so far as I can judge from the demonstration of feeling which has greeted the report, the meeting seems pretty unanimous already. It might be a question, whether it is the province of this Association to take up matters of this kind, and express a decided opinion upon them. But I only ask, if you do not take them up, where is the body that will? You see all sorts of quackery, with homœopathy foremost, rampant through the land; deluding, by its unaccountable infatuations, the powerful, the learned, the rich, and, worse than all, the poor, in multitudes; and not only are riches placed at the command of the instruments of these fallacies, but what are far more precious, and, this is far more terrible to contemplate, the lives of our fellow creatures! In fact, there is at this moment throughout this country an awful system of trafficking or gambling with the issues of life and death, and a perilous tampering with the elements of mortality—nay, a jeopardising, not of the body only, but even of the soul! for who can say—where victims are hurried out of the world by a delusion, and for want of proper treatment—who can say that some of such might not have been saved alive, and given time for repentance as well as recovery? It is altogether an awful consideration; and I quite shudder when I look back at the number of melancholy cases which have come to my knowledge, where, at the eleventh hour, the regular practitioner has been called in when it was too late; when the precious time, in which medicine might have availed, had been wasted with homœopathy; and we could only shake our heads, and lift up our hands, and exclaim, "Alas! what folly!" and, I fear, we might add, "What knavery too!" (*Cheers.*)

But do not such heart-sickening scenes, do not the general interests of humanity and science, loudly call for some guardian influence to warn the

infatuated public with a voice of some authority? We naturally look to our Colleges, and to the corporate heads of the profession, who are, or ought to be, the guardians of the public health, and the protectors of the medical commonweal. But what have our Colleges done? With the honourable exception of the Edinburgh Colleges of Physicians and Surgeons, the aristocracy of the profession has done nothing. Then we must look to the practitioners at large; and I do think it most fitting that this great Association, so largely and ably represented at this numerous meeting, should speak out clearly and decidedly on this subject:—and your voice will, in truth, be the voice of the whole profession!

It is, indeed, high time that the profession should boldly and intelligibly speak out, for the public are profoundly ignorant in the matter: they really know little what homœopathy is, and still less can they perceive how utterly irreconcileable it is with all that is established and true in medical experience and science. I often hear people talking of medicine and homœopathy as merely exhibiting instances in which doctors differ, which they are privileged to do, and one side may be as right as another. It seems a common mistake that homœopathy is a new system of medicine, which may or may not be true; but that it is entitled, as much as the old system, to compete for public favour, and claim public confidence. Thus they make no distinction between that which has resulted from the accumulated experience of ages, which is continually undergoing the tests of judgment and experience at the hands of hundreds of thousands of regular practitioners throughout the civilised world; which is receiving innumerable accessions and improvements, from the careful labours and discoveries of skilful men, in all the departments of science and art ancillary to medicine; they make, I say, no distinction between this noble and enduring, although unfinished structure, and a wild chimera of the day, which, reared by a fanciful mystic, and worked out by his designing followers, is fostered and flattered into an ephemeral notoriety by the patronage of a few whimsical lords and ladies, and other well-known victims of charlatanry.

I say the public, and the profession too, ought to know a little better what homœopathy is;—I mean *honest* homœopathy, as propounded by Hahnemann, and practised by the consistent and genuine of his followers—not that dishonest mixture of homœopathy with hydropathy, and Mesmerism, and ordinary medicine, which I can only call professional swindling, and obtaining money under false pretences (*cheers*); which, if possible, is more disgraceful and disreputable than quackery itself. But genuine homœopathy needs only to be known to be scouted by all soundly-thinking men. You have heard enough to laugh at, to pity, and to deplore, in the extracts read by Dr. Cormack; but do you really know what is meant by infinitesimal doses, which are the curative agents in this system? In the *Times* of yesterday, there is a report of the proceedings of the Homœopathic Association; and the reporter, by way of ridiculing the whole affair, remarked, that probably any one of the ancestors of the speakers had taken medicine sufficient to have doctored all the homœopathic patients in Golden Square. But this shows that he did not know the value of an infinitesimal dose. Our ordinary doses could be reduced to homœopathic tenuity only by dividing one man's dose among ten thousand times—(I speak much within bounds)—ten thousand times the inhabitants of the whole earth! Such are the absurdities of the homœopath. In fact, they deal with figures and numbers that are quite incomprehensible and inconceivable. It is all easy enough to talk of the trecillionth and decillionth of a grain, but I would appeal to the chemist and the natural philosopher, who are accustomed to appreciate minute realities, whether such numbers are not nonsensical when applied to experimental agents? One of the most delicate tests known, sulphuric acid, might possibly detect one hundred thousandth of a grain of lead in solution; and perhaps the same might be said of chlorine and silver. But the one hundred thou-

sandth part of a grain would have to be diluted a million times more, before it would reach the homœopathic tenuity. And homœopathy teaches that the disease that attacks the body,—disease of the most destructive kind, tending to subvert functions and destroy structures—disease that is clogging the very springs of life—that such disease is to be counteracted by something a million times less than the smallest quantity to be detected by the finest chemical test that was ever discovered! It is by such preposterous notions as these that homœopathists delude themselves and the public. It is on such ineffable absurdities that fashionable fools rely for aid in sickness; and (who would believe it?) it is with men who profess and believe in such inanities that some of our profession have degraded themselves by consulting. I quite agree in the spirit of the resolutions, that there should be *no shadow of compromise;* and that under no pretext of meeting for diagnosis, for surgical aid, or for any other purpose, should there be any intercourse between regular practitioners and the abettors of this monstrous and mischievous delusion. (*Cheers.*) Believing, nay, knowing, as we do, that homœopathy is entirely a fallacy, we must feel it our bounden duty to discountenance it in every way, and boldly to warn the public against its mischievous sophistry and fatal infatuations. (*Cheers.*)

Dr. Crisp concurred in the Resolutions; but thought that they did not strike at the root of the evil—the relations of the government to quackery, and quacks.

Dr. Cowan of Reading said:—Allow me, Sir, to make a few observations in favour of the adoption of this report. I am not a raw recruit in the anti-quackery ranks, having for many years done my utmost to expose and denounce the numerous delusions of the day, especially those affecting our own noble science. I am rejoiced to see the hearty and healthful tone of feeling with which the report has been received; for it appears to me most proper and most important for this Association to take the present opportunity of pronouncing its formal and its unanimous (*cheers*) rejection of homœopathy. The increase of homœopathy, I look upon with a very grave view; I regard it as one of those portentous moral phenomena which are stealing over the age. It is not the *practice of medicine* only that is at stake—it is the *practice of sound thinking.* When we supplant by mushroom theories truths which have hitherto occupied the minds of men, and been tested and confirmed by the experience of ages;—when we bring into existence new phantasies of the human mind, and give them the outward formality of facts, we surrender the stability of our judgment, and depart from all soundness of thinking. With us, as medical practitioners, the rejection of homœopathy is a question of principle, not of doses,—a question of morals, and not of etiquette. (*Loud applause.*)

The man who believes in homœopathy is a mystic—his creed is at variance with all rational experience, and subversive of all previously acquired knowledge. He has lost the ballast of his reasoning faculties, and set at defiance all those means by which the human mind is regulated. I distrust his judgment upon any subject—belief in homœopathy is but the symptom of a mind without stay or ballast, liable to be driven hopelessly into any folly, ever ready to spurn to-day what it yesterday believed. Hahnemann, the founder of homœopathy, was an enthusiastic visionary who preferred the wretched mushroom spawn of an inflated self-esteem and an extravagant fancy to those slowly growing, and ever deepening truths which ages had accumulated, and the wisdom of the wisest and the best of men had augmented and confirmed. If homœopathy be true, then are we all believing a lie, as all our forefathers have done; but if it be utterly baseless and false—as in my inmost soul I believe it to be—it can only be regarded as a deadly parasite upon Rational Medicine, which ought to be boldly excised, and cast aside by every sound-thinking mind.

This is an age of moral and intellectual anomalies not in physic only, but also in divinity. We have amongst us the monstrosity of Romish doctrines being consistent with Protestant preferment (*Hear, hear*), and the equally anomalous paradox of men educated as members of our honourable profession availing themselves of their titles and degrees while adopting and practising opinions which if previously avowed would for ever have excluded them from their present qualifications. Were a homœopathist a consistent and honest man, he would at once disassociate himself from a school whose best philosophy he proclaims to be a lie, and spurn a diploma which only pledges him to error. To eject homœopathic practitioners from our ranks, and exclude them from professional fellowship, is no act of tyrannous intolerance or bigotry, but a necessary measure of self-respect and self-defence—a consistent testimony to the principles we profess—the only method of extricating truth from apparent alliance with what we unhesitatingly assert to be a folly in philosophy and a dangerous delusion in practice. (*Applause.*)

In discussing homœopathy, I do not attempt its refutation by merely pointing out its arithmetical absurdities, and physical improbabilities; but I banish it at once beyond the pale of discussion, and class it amongst the fallacies too extreme for investigation. If a man say to me "Two and two make *five*," I do not speak to him twice; the man is *gone;* and if a man profess to me his belief in homœopathy, I am apart from him for ever. (*Repeated cheers.*) He admits as facts things at variance with rational experience, and in these circumstances I must stand aloof from him. (*Long-continued applause.*)

We have read of *mental epidemics* in the middle ages, but we are apt to forget how extensively they prevail in our own. In the midst of such restless excitement, such morbid extravagance, to adhere to the "old paths" and to sobriety of judgment, is no easy task. To be for ever seeking *first principles*, and to be without a standard *within*, by which new pretensions can be tested, is the condition of multitudes of all classes among whom we live—it is one of the most dangerous characters of an age of over-heated intellectualism. We rush wildly forth upon the field of experiment, mistake our fancies for facts, our expectations for principles; and are soon hopelessly enrolled in the rapidly swelling ranks of the deluded and deluding.

But I must not farther enlarge. Let me only say in conclusion, that to me our present duty seems very plain—it is to repudiate principles at variance with an honourable and a rational profession. Whether as an Association we perish or survive, let us nail our colours to the mast, and sink or swim in the good old ship of Rational Medicine. (*Cheers.*)

The motion was put from the Chair, and unanimously agreed to.

The following Committee were then appointed in terms of the fifth Resolution.—Dr. Cormack of Putney, Dr. Tunstall of Bath, Dr. Ranking of Norwich, Dr. Malden of Worcester, Dr. C. J. B. Williams of London, Sir Charles Hastings, M.D. of Worcester, and Dr. Cowan of Reading.

The Address in Medicine. Dr. King of Brighton then read the "Address in Medicine," which was warmly and justly applauded. It has since been published by Mr. Churchill.

A vote of thanks, proposed by Dr. Malden, and seconded by Dr. Hodgkin, having been unanimously carried, the President "feared to say anything on the subject, after the truly eloquent address from Dr. Malden on the eloquent paper of Dr. King. To his colleagues in Brighton, there was nothing in it to surprise them, because they knew his excellent character, and his goodness of heart (hear, hear); but he hailed it with delight, that such a paper should have been read to this meeting of the Association by a physician of Brighton."

The vote of thanks was carried by warm acclamation.

The Anniversary Meeting for 1852 was fixed to be held at Manchester; W. J. Wilson, Esq., of Manchester, to be President-Elect.

Communications. Several hours were then devoted to cases and papers.

Mr. Caleb Williams (York) read a paper on the change, during the last thirty years, in the types of disease. Dr. R. Hall read a paper entitled "Observations with Hutchinson's Spirometer." Dr. Sibson exhibited an improved form of his "Chest Measurer." Mr. Smith (Southam) read a curious paper, tending to show that the diminution of the age of man since the creation, had not been *gradually*, but by jumps; and that in each case, some great sin, such as pride, lust, idolatry, hardness of heart, had been precedents of those changes. He enforced the importance of our adopting the opposites of these, which might have the effect of diminishing disease, and prolonging life. Mr. Bottomley read a paper, detailing the successful treatment of a curious case of gangrene in the foot and leg. Mr. Domville read a paper on the causes of deafness. Dr. Crisp read a paper, the object of which was to show that kousso was not absolutely a specific for tape-worm. Mr. Hunt read a paper on the skin, as a diagnostic of health. Dr. Oldham read a paper descriptive of a successful Cæsarean section under chloroform. He recommended an opening from below, as small as possible, to be afterwards enlarged according to necessity, instead of resorting at first to the major operation, so as to avoid excessive hæmorrhage.

Dr. Conolly moved a vote of thanks to the President. The motion having been seconded by Dr. Hodgson, was carried by acclamation.

The President returned thanks, remarking that their kind expression of feeling towards him would be always a gratifying recollection.

An adjournment now took place, at five o'clock, to afford an opportunity for the members to prepare for the dinner, which took place in the Royal Banqueting Hall, recently restored by the Brighton Town Commissioners; and scarcely less gorgeous than when used for the reception of royal guests in the time of George IV, under whose immediate direction it was designed, built, and decorated.

Dr. Jenks, the President, ably filled the chair. Although many had to start for their distant homes before dinner, there were about 250 present, including in addition to the members, Dr. Paris, President of the College of Physicians; Mr. South, President of the College of Surgeons; the Bishop of Chichester; the Rev. H. M. Wagner, Vicar of Brighton; the Rev. T. Cooke; the Rev. S. R. Drummond; Rev. J. Nelson Goulty; Montague Scott, Esq., High-Constable of Brighton; W. Furner, Esq., Judge of the County Courts of Sussex; Eardly N. Hall, Esq., Banker; Lewis Slight, Esq., Clerk to the Brighton Commissioners; P. R. Wilkinson, Esq.; Jacob Bell, M.P.; Mr. Jackson of Boston, U. S., etc., etc. The band of the 1st Dragoons (Royals) played before and during dinner. The party broke up about midnight.

TO OUR READERS.

Our desire to give a full report of the important proceedings of the Provincial Medical and Surgical Association, has caused the omission from this number of the Appointments, Obituary, and various short articles of Miscellaneous Intelligence.

We congratulate the profession on what has been so nobly done for the vindication and preservation of its honour by the Association. The Resolutions could not be better, or more explicit. It must be gratifying to those who took a lead in the business, to find that their exposures of homœopathy have caused a cry of agony to issue from the charlatanic press, which tells of a wound.